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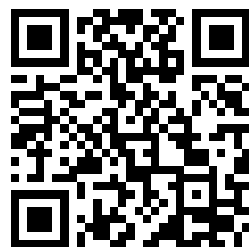
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END OF THE EIGHTEENTH VOLUME.

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# The Medical Press & Circular.

"SALUS POPULI SUPREMA LEX."

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WITH TITLE-PAGE AND INDEX.

## Original Communications.

### MEDICAL PROBLEMS OF THE DAY. (a)

By NATHAN ALLEN, M.D.

[THE first part of the address referred to the early origin of medicine, tracing it to the dawn of the sciences of anatomy, physiology, pathology, and hygiene, the four pillars of medicine. Dr. Allen then spoke on several subjects as follows:—]

*State Medicine.*—This phrase refers to the employment of measures for the promotion of public health and the prevention of disease by means of legislation. It is only about thirty years since any decided steps were taken in this direction, either in Europe or in this country. It is true that for a much longer period there had been legislation with reference to quarantine and the establishment of boards of health, but no decided and active legislative measures had been taken directly for the good of the people at large. In Great Britain much progress has already been made in sanitary reform. The reports of the registrar-general, of royal commissions, of local boards of health, papers read before scientific associations, together with discussions in Parliament, in journals, and books, have attracted very general attention to this subject. Parliament has scarcely held a session for twenty years without having had some discussion, or passed some act referring to health. The principal topics upon which legislation there has taken place are drainage, sewerage, water supplies, removal of nuisances, construction of lodging houses, hours of labour, public baths, epidemic and contagious diseases. In 1872, several of these laws were remodelled, making them more practical; and new acts were passed, providing for the appointment of health officers to see that these laws were more efficiently executed in all parts of the kingdom. So general has been the interest created upon this subject, it was predicted by

the present Prime Minister that the next great political agitation in England would be on sanitary reform.

In this country our own commonwealth has taken the lead in legislation. In 1841 acts were passed establishing throughout the State a uniform registration of births, marriages, and deaths, which has been continued for over thirty years. These reports embody the most valuable documents upon vital statistics that can be found in the country. In 1849 an act was passed providing for a sanitary survey of the State, which brought together many valuable facts and statistics relating to health, especially in several of the leading cities of the commonwealth. In 1869 a State Board of Health was created by our legislature. In each step of this legislation it should be stated, that the project was first started in the Massachusetts Medical Society, memorialising the legislature upon the subject. To the credit of this society it should also be stated, that for thirty years or more it has made repeatedly special efforts for the promotion of public health, either at its business meetings, or by addresses and papers published in its name. But a great work yet remains for the Society to do in this same direction. We should not omit to state that in 1850 two very important acts were passed by the legislature, requiring that physiology and hygiene should be taught in all the public schools of the Commonwealth, and that teachers should be examined in the elementary principles of these sciences; but as the enforcement of those acts was left discretionary with school committees, the results have not been altogether satisfactory.

But the Act creating a State Board of Health is the most important step taken in legislation. This board has now published five reports, which are an honour to the profession and a credit to the Commonwealth. It has a very difficult work to accomplish, and should be sustained by every member of this society. New questions in sanitary science are coming up for consideration, which will require some positive legislation. The pecuniary interests of individuals and of the public are found to be in open conflict with the lives and health of the people. For instance—have individuals or companies a right to poison the air or water, which may destroy the health or the lives of multi-

(a) Part of the annual address before the Massachusetts Medical Society, assembled in Boston June 3rd.

tudes? Shall poisoned or adulterated foods be offered in our markets for sale? How long shall it be permitted to construct and rent tenement houses in such a manner as to breed disease and pestilence? Legislation has always placed great powers in boards of health; but either for the want of sufficient intelligence, or from some political motives, they are frequently very dilatory in enforcing the law. Within a few years we have had several marked illustrations of this character. In 1871 and 1872 the small-pox prevailed as an epidemic in Lowell and Boston, which might easily have been checked in its first stages. The boards of health in both cities shamefully neglected their duty; and, while they for months were contending about minor points, and shuffling for place and power, the epidemic raged with great violence. Public opinion finally compelled the formation of new boards of health, which, by introducing efficient measures, arrested at once the progress of the epidemics. But by this delay more than a thousand lives were sacrificed, a great amount of sickness was caused, and an immense bill of expense incurred. These two cases show the vast importance of having competent and efficient boards of health. Human life and public safety and interests should never be thus jeopardised. As extraordinary powers are conferred by legislation upon such boards, placing in their hands the health and lives of the community, it becomes a matter of the highest moment that they be composed of men thoroughly qualified for the duties of the place. The medical profession should always be here represented by its best men, who, by advice and influence, should take the lead in all measures for preventing or arresting the progress of disease. The voice and influence of the profession, too, should be felt in the halls of legislation, and in the management of our public institutions. Medical knowledge should be brought into requisition in these high places of power and influence to a far greater extent than it has been hitherto. The chief cause of our defective and dependent classes may be found in the violation of physiological laws. The causes of idiocy, blindness, mutism, and insanity, arise obviously from this source; and the causes of pauperism and crime may be traced, more or less, to the violation of physical laws. And the more thoroughly the primary causes of many other evils that afflict society and require legislation are investigated, it will be found that they arise from some violation or perversion of physiological laws. No radical or permanent reform can be reached without going back to the primary sources or causes of the evil. In aiding to accomplish this great work, the medical profession sustain a most intimate and important relation to what may be denominated—

*Public Hygiene.*—This includes not merely prevention of disease, but every agency that renders the growth and organisation of the body more perfect, and its decay less rapid. By reference to the organisation of the Massachusetts Medical Society, it will be seen, that this was one of its principal objects. The very first sentence in its charter reads, "As health is essentially necessary to the happiness of society, and as its preservation or recovery is closely connected with the knowledge of the animal economy, and of the properties and effects of medicines, &c., be it therefore enacted," &c. And then in specifying its objects in another place, it says, "to increase and diffuse medical knowledge." It would seem, therefore, that one of the primary objects in the organisation of this Society was to promote the health of the community, to prevent disease, and diffuse medical knowledge. It is impossible to accomplish this object without making the public generally acquainted with the laws of physiology and hygiene. The objects intended by State medicine cannot effectually be attained without a general understanding of those subjects. The practical application of legislation, and the execution of law in a republic, where especially personal rights and interests are involved, depend upon knowledge as well as a sense of justice. It has been repeatedly demonstrated that the ravages of small-pox, cholera, and yellow fever can be prevented or checked by applying sanitary law; but, in order to do this, the people themselves must be

made acquainted with the means of doing it. They must become participators in the work; otherwise it cannot be accomplished. Without referring to facts and figures on the subject, it may be safely stated, we believe, that full one-third of all the prevalent diseases of the day may be prevented by faithful application of hygienic laws; but the people themselves must first understand these facts. Once there might have been a difference of opinion among the members of the profession about the expediency of diffusing such information, alleging that a bad use was made of it—that a little learning, a smattering of such knowledge, was a dangerous thing. Illustrations of this character are constantly occurring; but if some abuse and pervert this knowledge, all do not—multitudes make a good use of it. The evils are only incidental to a higher good.

Besides, much depends upon the manner in which this information is communicated. The objects and agencies by which this has at times been attempted are of a very questionable character. Almanacs, circulars, advertisements, and immoral publications, have been scattered broadcast, professedly to promote health; but the leading motives and objects were very different. It may be said that such a bountiful supply would not exist if there was not a demand for knowledge of this sort—that the public are bound in some way to obtain it. Accordingly we find in newspapers and periodicals an increasing demand and supply of articles on health; also our journals and books, that are devoted more exclusively to the subject, are constantly multiplying. It is very important, in communicating this information, that a proper direction be given to it, and that it should be tempered with the right spirit and motive. In diffusing a knowledge of hygiene it is not expected that every person will become familiar with the details of physiology, or with all the relations it sustains to the laws of life and health. If the more intelligent and influential members of society obtain this information, they will direct public opinion, and gradually enlighten the masses as to their duties and dangers.

Inasmuch as such knowledge properly applied is calculated to prevent a vast amount of suffering, sickness, and mortality, is it not clearly the duty of the profession and the press to use all suitable means for its diffusion? The more enlightened the community become, generally, upon this subject, the less exposed it will be to imposition and quackery. Instead of blind superstition and credulity, a rational faith will grow up in the study and observance of the laws of health and life. The demand in the use of remedial means will be directed to the best skill and experience which can be found, that grows out of a profound knowledge of physiology and hygiene. Let the principles of science and the exercise of good common sense direct and control in all these matters. For it is in this way, and by this means only, that all kinds of empiricism and quackery, root and branch, can be eradicated. The public have infinitely more at stake in attempting to effect such a reform than the medical profession. The visions of the alchemist in search after the "elixir of life" or the "philosopher's stone" may yet in some measure be realised by the diffusion of hygienic knowledge. For wherever the laws of hygiene have been faithfully observed, it has greatly improved not only individual health, but diminished the amount of sickness as well as of mortality. In certain localities in Great Britain, where these laws have been tested for a series of years, the registration reports show a diminution of mortality of one-third to one-half. Such a result we should naturally expect. The more thoroughly the causes of disease are understood, the more and more are they found traceable to a violation of hygienic laws. If the ravages of cholera, of yellow fever and typhoid may be controlled in a great measure by the observance of such laws, why may not scarlet fever, measles and whooping cough—those scourges of infant life—be prevented, or very much limited? The prevailing sentiment that all children must necessarily have these diseases once, finds no support whatever in the nature of physiology or in the principles of hygiene. The fact is already well-established, that the



spread and violence of scarlet fever, by isolation, cleanliness, and ventilation, are very much modified, and, in some instances, entirely prevented. We believe the time will come when scarlet fever, measles, and whooping-cough, which now destroy multitudes of children, will become, in a measure, things of the past. It is not only the great amount of sickness and mortality occasioned directly by these diseases, but the impaired constitutions and other complaints consequent upon them, that may also be prevented. When the community realise fully that the means of preserving health, especially in early life, are placed in a great measure in its own hands, a far higher estimate will be placed upon the value of human life, and the responsibility for its preservation will be found to depend in a great measure upon human efforts. For this sentiment of responsibility, which harmonises with all great principles of justice and accountability, increases just in proportion as the laws of physical organisation are thus brought out and applied. When disease, instead of being wrapt up, in its origin and progress, in a kind of mystery, can be traced to an intelligible source or cause; when it shall be clearly perceived that sickness and premature mortality are the results of violated law, then will our own interest in the subject be greatly enhanced—then will the responsibility be transferred from a "divine Providence" to human agency.

(To be continued.)

## TWO CASES IN WHICH THE PNEUMATIC ASPIRATOR WAS EMPLOYED SUCCESSFULLY.

By E. W. LEE, M.D., Chicago.

**CASE I.**—G. M., æt. 74 years, called upon me early on the morning of February 5th, complaining of inability to urinate. A few questions elicited evidences of chronic prostatic enlargement, which was confirmed by a digital examination, the gland being of great size, indurated, but quite insensitive, pressure being freely borne without pain.

I at once attempted to empty the bladder by catheterism, but after repeated efforts with various sizes of instruments, was reluctantly obliged to desist. I then resorted to hip-baths, injections per rectum of warm water, with opium, &c., internally. A second and repeated attempts to introduce the catheter at intervals until the afternoon of the 6th were invariably unsuccessful. Up to this time the kidneys were not secreting actively, hence there was no painful distension; but slight symptoms of coma ensuing, it became imperative to at once empty the bladder and promote free action of the kidneys. As I could not introduce the catheter, and puncturing the viscus through the rectum was contra-indicated by age and general condition, I determined to use my pneumatic aspirator, which was done with the most gratifying results. A medium-sized needle of the aspirator being introduced immediately above the pubis, allowed the escape of thirty ounces of turbid and bloody urine. The operation was repeated twice on the 7th, thirty-five and forty-two ounces respectively being discharged, more nearly normal in quality. On the morning of the 8th I succeeded in carrying a No. 8 catheter into the bladder with comparative facility, and on the 9th the patient passed the instrument himself. There was not the slightest untoward symptom from the punctures of the bladder, and the man made a good recovery.

**CASE II.**—I was called on the evening of the 22nd of March to see T. K., æt. 30 years. He informed me that he had suffered for years from hernia, and that hitherto he could readily reduce it, but was now unable to do so. On examination I found a large scrotal hernia, strangulated. The man was in great pain, vomiting freely; skin cold and clammy; pulse fifty beats per minute, and weak; anxious expression of countenance.

I injected half a grain morph. sulph. hypodermically, with marked benefit, the pulse getting firmer and the skin

warm and dry, pain also being removed to a great extent. I now had the patient anæsthetised, and having applied taxis until I became satisfied that it could not succeed, I introduced the finest needle of the aspirator, and drew off seven ounces of rather thick, bloody serum. Withdrawing the instrument I introduced one of larger calibre, which had the effect of liberating a quantity of air. These procedures reduced the volume of the tumour considerably, when, to my great satisfaction, with very little effort, the intestine was returned to the cavity to which it belonged. There was some tympanitis and tenderness of the abdomen for a couple of days, but the man made a good recovery.—*Chicago Medical Journal.*

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THE

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## The Medical Press and Circular.

"SALUS POPULI SUPREMA LEX."

WEDNESDAY, JULY 1, 1874.

### EXAMINATION.

LONDON gossip is just now very much concerned with the mode of conducting examinations—so much so, indeed that the interest attaching to the coming election into the Council of the College of Surgeons is made to depend on the changes it may produce in the examinations. The College occupies so large a place among the English corporations that the interest felt in its prosperity is very great, and it is usually popular with all classes. Of late, however, murmurs both loud and deep have been heard in many quarters, and some have turned their backs on its portals, determined never again to approach them. The discontent affects candidates for both diplomas; but the unusual proportion of rejections for the higher distinction has given rise to more comment than the apparently sudden raising of the lower standard.

On the one hand we are told that, at the late Fellowship examinations men were "spun" who were known to be well prepared, and who had been assured by the best teachers that they must pass. On the other hand, it is said that the examiners are determined to keep up the standard of the Fellowship, and that nothing will prevent them from doing their duty.

This resolution is one which all would applaud, and we believe even rejected candidates do not desire a lowering of the standard. It would be a farce to institute an examination for a higher distinction which did not afford some guarantee of wider and more exact information. We therefore look upon the virtuous resolution reported of the examiners as nothing more than an excuse for the events that have brought their method into discussion. Candidates, both successful and unsuccessful, agree that

the late examinations have been very unsatisfactory tests of their attainments, and, after spending hours in hearing a recapitulation of those examinations, and reading the questions, we are much inclined to agree with them.

The examiners used to have a horror of the old-fashioned "grinder;" but really the most recent *vivâ voce* examinations might well have been the result of reminiscences of some of the worst "trituration" processes of a generation since. We have the utmost contempt for mere "catch questions," and consider that an examiner who resorts to them is ignorant of his business. Indeed, were we once more candidates and found ourselves thus interrogated, we should hope to have presence of mind to remonstrate. If some one "up to all the tips" would, while answering everyone, retort upon his examiner, it might awaken the reflection that the world has not stood still while examiners have been climbing to their exalted posts.

Another complaint is heard. It has often been made before, and we in our own time experienced it. It relates to the want of consideration sometimes shown to candidates, who speak of it as impoliteness, and even use much more emphatic words. Assuredly a candidate has a right to expect to be treated as a gentleman. The examiner who forgets this loses his claim to the title.

To evince vexation at gross ignorance is to exceed his duty; but to be overbearing is unpardonable. We have heard most complaints of college manners from candidates for the Membership, but some seeking the Fellowship have also urged this grievance on our notice. We trust the mere mention of it may suffice to prevent cause for any future complaint of the kind.

If we look at the papers we find that the College plan, in spite of many changes, is the same as it was—viz., to form a rapid estimate and pass or pluck upon that. At other institutions—notably at the London University—the opposite plan is adopted of giving the candidate the opportunity of showing what he knows, and of taking time to estimate this. There is something to be said for both methods. For the former it may be alleged that a man who can rapidly state his knowledge of two or three things is probably as well prepared on the major number. For the latter it may be said there is less chance of an ill-informed man passing because he was lucky in his questions, or a much better man being rejected from being taken on his weak point. Obviously the former method is most adapted for *vivâ voce*, and the latter for written examinations; and now the College combines both plans it may be worth while to consider whether it would not be better to give a choice of written questions as at the University. We trust while the standard is maintained every effort will be made to secure that those who reach it shall not be rejected.

With regard to Membership we may say that, practical as it may seem, the exhibition of "pickles," and the demand, "what's that, Sir," and a display of vexation at hesitation, is a sorry substitute for skill in examining. We have known these "pickles" fatal to men well up in practice and in pathology who had done well with their written papers, and that, too, when the said "pickles" required a label to explain what they were to good anatomists and surgeons who did not care much for "preparations." It has often been said to us that the examiners themselves would not have known some preparations could the bottles have been changed.

## OUR PAUPER CHILDREN.

WHAT is to be done with our pauper children in the way of making them useful members of society? is a question often asked, and of considerable national importance—whether it is better to herd the innately viciously-disposed offspring of whores and rogues with the sprinkling of the children of misfortune in pauper schools, or separate and train them in the decent homes of our labouring population, where they will be brought under the humanising influence of home life. In Scotland this question has been happily decided in favour of *boarding out*, as it is termed, and, as we know, with the happiest and best results. In the House of Lords last week the question was asked by Earl De la Warr, who directed the attention of the Government once more to the comparative advantage of the *boarding out* system over that of union schools. Mr. Goschen, in 1870, after considerable pressure had been brought to bear upon him, made an order to enable boards of guardians to place out orphan and deserted children; but these regulations, it appears, only applied to these particular classes of children, and not to those born in the union-house. It is computed that there are upwards of 20,000 of the latter class in England and Wales, and it appears that not more than 2,500 were boarded out. In 47 unions in the year 1873 the system of boarding out children was adopted; the guardians, with very few exceptions, expressed satisfaction at the results, and it might be inferred that it was from the want of encouragement and support that the practice was not more general. Nevertheless, it has been found that the evils arising from the massing together of children, and especially of pauper children, not always the most healthy, were very great; as an instance, the Kingston (Surrey) Union, in the year 1872, sent some of the children to the district schools at Penge, but they reported that the result was most unsatisfactory. They did not find fault with the arrangements at Penge, but they gave as their opinion that it was "the natural sequence of massing together so large a number of children of the pauper class;" and it was further stated that "many of the children who had been sent to the Penge district school healthy and strong returned in a deplorable state to their homes after a few weeks' stay at the school, suffering from ophthalmia and cutaneous diseases. The boarding out system was afterwards tried with success. It had also been recently stated with reference to the large school at Anerley, that the Croydon Board of Guardians had had great difficulties to contend with in consequence of persistent ophthalmia affecting the children. There were many other instances of the evils in a sanitary point of view of bringing together large numbers of children.

The late President of the Local Government Board, Mr. Stansfeld, in 1873, said of the boarding out system:—

"The reports which we have received on the children generally are favourable as to their health, appearance, and management, and exhibit a satisfactory result in this respect of the system of boarding out orphan and deserted pauper children under the immediate supervision of committees who voluntarily undertake the duty."

The noble lord stated with regard to the moral aspect of the question, "it was, unhappily, a certain fact that a union-house education exercised a very injurious influence upon the future moral and social character of the children, and in one instance which he mentioned, out of 80 girls

educated in a union school, scarcely one escaped moral degradation in after life. It could not be doubted that these evils would be greatly mitigated if orphan and deserted children were placed under the better influences of home and domestic life. With reference to the question as affecting the ratepayers, they derive no advantage from having large union or district schools. The subject was recently discussed at the Lancashire Sessions, at Preston, and it appeared that the cost of each child at the Swinton District School, near Manchester, stated to be one of the best of the class, was 6s. 4d. a week, and at the Leeds Schools 7s. 7d., whereas in England the average on the boarding out system is about 5s., and in Scotland, where it was very general, it did not much exceed 3s. 6d. or 4s. In returns made to the Local Government Board, it appears that the average cost of a child in a district school was nearly 10s. a week. Mr. Henley, in a report to the Poor-law Board in the year 1870 on the boarding out system as practised in Scotland, says :—

“Boarded out children certainly acquire a more robust constitution, and apparently greater mental activity, than children reared in an ordinary workhouse, and these two points strike at the very root of pauperism, as the majority who fall upon the rates do so from mental or physical weakness.”

It was time that some steps were taken to ascertain the number of pauper children boarded out in the different unions, and the average cost per week of each pauper child to the ratepayers.

#### THE PUBLIC HEALTH BILL (IRELAND).

SINCE our last issue the Public Health Bill has been reprinted, and amended in some respects; clause 10 which concerns our profession immediately, runs thus as now amended :—

“Every medical officer of a dispensary district shall be a sanitary officer for such district, or for such part thereof as he shall personally be in charge of, with such additional salary as the Local Government Board shall determine or approve; and every sanitary authority, whether urban or rural, shall appoint such other sanitary officers, including a medical superintendent officer of health, when deemed necessary, as the Local Government Board shall in each case direct, with such salaries or additional salaries as the said Board shall determine or approve; and the said Board shall assign to the dispensary medical officers, and to the other sanitary officers, if any, and to the medical superintendent officer of health, if such an officer be appointed for the sanitary district, their respective duties and functions in the discovery or inspection or removal of nuisances, in the supply of pure water, in the making or repairing of sewers and drains, or in generally superintending the execution of the sanitary laws within the district.”

N.B.—Dr. Brady, M.P., has given notice that he will move to omit the words “medical superintendent officer,” and insert, “and in case it shall be deemed necessary to appoint a medical superintendent officer, the Local Government Board shall appoint the same at such salary as may be proper.”

“Every such salary or additional salary so determined or approved shall be payable from such local fund as the Local Government Board shall indicate as properly chargeable therewith, and such part thereof as Parliament shall from time to time determine shall be recouped to such local fund out of moneys to be voted by Parliament; and the Local Government Board shall have the same powers

with regard to the qualification, appointment, duties, salary, and tenure of office of every sanitary officer as they have in the case of the medical officer of a dispensary district.

“11. Inspectors of the Local Government Board may attend any meetings of sanitary authorities during the transaction of business arising under any of the provisions of the Sanitary Acts; and such inspectors shall, for the purposes of any inquiry directed by the said Local Government Board, in relation to witnesses and their examination, the production of papers and accounts, the inspection of places and matters required to be inspected, have for the purposes of the Sanitary Acts or Burial Ground Acts or any of the said Acts similar powers to those which inspectors have under the Poor-law Acts and under the Medical Charities Act for the purposes of those Acts.”

It will be seen that *medical* superintendent is now recognised at the discretion of the Local Government Board; this Board possesses already by the Medical Charities Act the powers of appointing inspectors, so that we may now more clearly understand that the working machinery will be :—

1. Inspectors who by clause 11 are entitled to attend any sanitary meetings, and are to be appointed by the Local Government Board.

2. Medical superintendents who are at present supposed by the wording of the Bill will be elected by the sanitary authorities of the district, whether this be urban, rural, or compound. The above amendment by Dr. Brady proposes to alter this, and has the general support of the profession.

3. Sanitary officer—i.e., the dispensary medical officer—appointed by the guardians as at present, and contingent on his appointment as medical officer.

4. Inspector of nuisances, or some such officer as may seem necessary, to be appointed by the sanitary authorities.

Medical officers of dispensaries will doubtless have increased duties to perform which are incidental, more or less, to their usual medical duties; they therefore must endeavour to have the remuneration awarded on such a sufficiently liberal scale, and the amount of which, as it is in the hands of the Local Government Board to decide on from its acquaintance with the working of the Poor-law Medical Service, we may feel sure will be proportioned with due consideration for such additional services. The Bill proposes at clause 30 compensation in certain cases, as follows :—

“If any officer of any body by this Act constituted the sanitary authority of any district is, by or in pursuance of this Act or of any provisional order made under the authority of this Act, removed from his office or deprived of the whole or part of the emoluments of his office, and is not employed in an office of equal value by such sanitary authority, the Local Government Board may by order award to such officer such compensation as the said Board may think just; and such compensation may be by way of annuity or otherwise, and shall be paid by the authority of the sanitary district in which such officer held his office out of the rates applicable to sanitary purposes within that district.”

This must be acknowledged to be a step in the right direction, as boards of guardians evidence too frequently a grudging spirit towards officers who for years have been in their service, and have performed arduous duties with regularity and attention. If the superannuation for medical services was also apportioned by the Local Government Board we apprehend a more contented spirit would

prevail, and dispensary officers would enter on and discharge their duties with greater energy and confidence were it certified to them that at the end of a long career of active work they would depend for their superannuation allowance not on the caprice of a varying Board of Guardians, but of a Local Government Board, who would not be influenced either by motives of private pique or of ill-judged parsimony. We must hope the time is approaching.

The College of Surgeons and Physicians have, at considerable expense, sent deputations to London to urge the introduction of *medical* superintendents and other improvements in the Bill, and we have already called on our friends and medical brethren throughout the country to bestir themselves, and use what influence they can with energy and consistency. Copies of the Bill have been sent to all members of the Irish Medical Association, which was down for reading on the first opportunity. Friday night last was named for it, but it was not then possible to enter on the discussion; but it will be taken probably this week.

## Notes on Current Topics.

### The Queen on Vivisection.

THE jubilee of the Royal Society for the Prevention of Cruelty to Animals was celebrated last week. Her Majesty the Queen sent a letter expressing horror at the cruelty often inflicted thoughtlessly on animals. The Queen then referred to experiments in pursuit of science, and expressed a trust that the anaesthetics of which man availed himself were constantly employed to prevent suffering from such experiments. This is the rational mode of looking at the recent controversy on vivisection. While we admit largely the claims of really scientific men to carry out experiments designed to advance physiology, we certainly stipulate for the use of anaesthetics, and we believe that most physiologists agree with us. We know that at some of our medical schools a man who neglected to give an anaesthetic as a preliminary to a painful experiment would be regarded as a monster. Medical students, we believe, would not be likely to tolerate such cruelty.

### Nurses for the Sick Poor.

THE public meeting to consider the formation of a national association for training and providing nurses for the sick poor, in reference to which we have already spoken, was duly held last week. The chair was occupied by Sir Rutherford Alcock, K.C.B., who opened the meeting with a brief reference to its object. The first resolution was moved by the Earl of Shaftesbury—viz.: "That with a view to securing better nurses for the sick poor as a sanitary and preventive measure, an association be formed according to the recommendations of the Medical Subcommittee of the Order of St. John for training a body of nurses for that object in London and the provinces, and that a home be established where nurses in training at the London hospitals, or employed as district nurses, may lodge, and where a register of trained nurses requiring

employment may be kept." The Bishop of Rochester seconded the resolution, which was adopted, and other resolutions were passed to carry out the proposal. Now that the plan has been fairly set on foot, we hope that it will prove of great benefit to the sick poor.

### Hospital Sunday Fund.

WE are informed that the Metropolitan Hospital Sunday Fund already exceeds £26,000. This is somewhat in excess of the amount received in a like period last year.

### The Waters of St. Galmier and Couzan.

IN these days, when Acts of Parliament are called into requisition to check adulterations, the public have not unnaturally become inquisitive as to the nature and quality of articles which perforce pass their lips, and the certificate or analysis of some duly constituted authority is now often the only passport for goods to which suspicion did not formerly attach. That this spirit of scepticism is carried too far, we are not disposed to deny, but manufacturers have themselves to thank, and the public are undoubtedly gainers in the long run. Of course, there are articles which it does not pay to adulterate; of these may be mentioned natural mineral waters, the consumption of which increases yearly in enormous proportions, so that the trade in these articles is a very flourishing one in most civilised countries. Our readers are probably aware of the names of the best known sources, and the maladies for which they are usually prescribed. Here are two more, not new by any means, as the celebrated Dr. Laprade wrote of their virtues as far back as 1778; but they are comparatively new to this country, and deserve to be as widely known as many of their rivals. In fact we were led to these remarks on observing the excellent results in some cases of obstinate dyspepsia, and we have, therefore, much pleasure in recommending the waters of St. Galmier and Couzan to the more extensive patronage of the profession. In France we have noticed the water upon almost every table at the hotels at which we stayed, and when we state that in that country no fewer than five millions of bottles of St. Galmier alone are sold annually, its popularity will be readily measured. The importers for this country are the Messrs. Gallais, of Margaret Street, London, W., by whom they are sold at a less price than the ordinary artificial seltzer, soda, and other manufactured waters, which we have found not unfrequently tainted with lead and other impurities of a careless manufacturer. The waters of St. Galmier and Couzan, should be classed with the bicarbonates, soda, potash, magnesia, and iron, being their chief characteristics.

### King's College.

IT is rumoured that at the close of the session Dr. Garrod will retire from the Professorship of Materia Medica, and that Dr. B. Yeo is likely to succeed him. It is not unlikely Dr. Garrod may also resign the Physiciancy to the hospital. The statement that Sir W. Ferguson was about to resign, circulated by a contemporary, was incorrect. Sir William only resigned his seat at the committee, as did also Mr. H. Smith and a dozen lay governors who disapproved the recent decision about nursing.

### The Schoolmaster's Idea of Stupidity.

WHEN will the masters of our middle-class schools become sufficiently intelligent to cease flogging, and endeavour to recognise the differences between disease and stupidity? In the case brought to our notice last week of a little boy dying after a flogging administered in private, the poor little patient was unable to give his version of the extent and severity of the birching administered, and which proved so disastrous. We, however, feel sympathy for all parties concerned—firstly, for the poor little fellow himself, who, like Humphrey in Miss Montgomery's charming story, was "misunderstood," who appeared to be sulky and idle when he was really suffering from an affection of the brain; next for the parents, who will probably always believe, and believe justly, that their affectionate anxiety would have at once divined the real cause of the boy's apparent disinclination to do his lessons, although it escaped the eye of one who stood to him in the colder relation of a preceptor; and, lastly, we may bestow compassion on the schoolmaster himself, who, according to his evidence, does not appear to have acted with any undue severity, but whose chastisement certainly accelerated death. Doubtless he will not easily forget the lesson he has received. In commenting on such cases as these—as in the kindred instances of apoplexy being mistaken for drunkenness—we should be slow to attribute blame in cases where there is no evidence of intentional brutality. We should bear in mind that hundreds of idle boys are flogged, and hundreds of drunken men and women are locked up in police cells every day, whereas the cases where schoolmasters or policemen mistake illness for laziness or intoxication are proportionately rare.

### United Hospitals.

THE sports in connection with the London Hospital Medical Schools came off at Lillie Bridge, on Saturday, under the presidency of Mr. Luther Holden, F.R.C.S. The meeting was a great success, and the prizes fell as under: To King's College, five prizes; St. Bartholomew's, three; Guy's, one; and St. George's, one.

### Indian Medical Service.

WE hear that in consequence of the decease of Dr. Beatson, Surgeon-General Gordon, C.B., will probably go to India.

### The Apothecaries' Company.

THE Bill of the Company to enable them to join in the Conjoint Scheme has passed the House of Commons, and is now before the Lords. A clause declares that nothing is either to deprive or relieve the Company of any right it may now possess to admit women to the examinations for the licence. Does the Company propose to become the licensing body for females?

### General Medical Council.

As Dr. Paget's term of office as President approaches its termination there is a good deal of speculation as to who will succeed him. It is not impossible that an effort will be made to secure his services for another term, and it is very desirable he should consent to act for at least another year.

### London's Lungs.

WE do not intend to dilate upon the open spaces of the great metropolis which might be fairly represented under this title; our object is simply to chronicle the fact that one of the foulest blots in London will to-morrow be removed by the formal gift of Leicester Square to the nation by Mr. Albert Grant, M.P. for Kidderminster. London's lungs will be all the purer for this noble gift, the atmosphere around which has for a long time been polluted with dead cats and dogs and other pestiferous nuisances, making Leicester Square a by-word at home and abroad. What a strange metamorphosis will strike passers-by on the morrow—no huge, ugly hoarding, no blush of shame will arise on their cheeks that the wealthy city of London allows such a scandal to exist in its very midst; but a beautifully laid out garden, with marble statues of Dr. Hunter, Sir Isaac Newton, Hogarth, and Sir Joshua Reynolds to embellish the ground formerly honoured by their residence on it. Could our immortal *confrère* Hunter have witnessed the state of abject degradation to which the square has of late years fallen his mighty spirit would have groaned at the fallen fortunes of a once favoured spot, and blessed the generous donor who has made it to rise again phoenix-like from the ashes of its past greatness. We have no sympathy with those who decry the gift, and attribute it to interested motives. A man has but to make himself great or rich, or to set himself to work out some laudable undertaking, and before starting he may be perfectly certain that all sorts of shafts will be hurled at him, and insinuations such as have during the past week disgraced the hoardings of the metropolis will crop up like weeds to injure his reputation and to lessen the honour that might fully belong to him. Mr. Grant has our entire sympathy and our thanks for so generously handing over to the metropolis another pleasant place to look upon—another lung through which London can respire.

### Exclusion of Physicians from the Commission of the Peace.

WE have read with much astonishment and with some apprehension that we have attached to the Chief Secretary's statement an erroneous interpretation—the report of a reply given by Sir M. H. Beach to a question put to him by Mr. Moore, the Member for Clonmel, in reference to the veto of the nomination of two magistrates by Lord Lismore by the Lords Commissioners, who are now temporarily exercising the functions of the Lord Chancellor in Ireland. Lord Lismore had appointed to the Commission of the Peace a medical gentleman of repute in his county, and Sir M. H. Beach is reported to have stated that the appointment was cancelled because the Government does not consider a physician in practice to be a fit person to be entrusted with the Commission of the Peace. Having regard to the fact that for a long series of years practising physicians have been approved for the office of J.P., and have discharged their duties without the slightest suggestion of impropriety, and as everyone is aware that the Commission is every week granted to petty shopkeepers and persons infinitely inferior in social and educational status to the practising physician, we are

entirely unable to comprehend the declaration of opinion of the Chief Secretary either as a statement of policy or as an authoritative insult to the medical profession. We believe that if the House of Commons were consulted it would be speedily ascertained that the exclusion of medical men from the smallest local official dignity is not desired or approved by Parliament, and we trust that the Irish Medical Association will lose no time in eliciting from the Chief Secretary, through some of the Irish representatives, an explanation of this very extraordinary confession of faith.

THE Fellows of the Royal College of Physicians of London had a dinner last week, which was well attended.

MR. JABEZ HOGG has been elected a Corresponding Fellow of the Philadelphia Academy of Sciences.

DR. J. MILNER FOTHERGILL is a candidate for the vacant Chair of Materia Medica and Therapeutics at King's College, London.

THE additions to the Hunterian Museum for the present year are now on view, and will remain so until after the election of councillors.

AN infant nursery and mission was opened in Wellclose Square last week by the Duke and Duchess of Edinburgh. The Duchess also opened a *crèche* at the East End.

THE session of the General Medical Council is to open July 10th, in the building formerly occupied by the Royal College of Chemistry.

DR. JULIUS POLLOCK has been appointed Lecturer on the Principles and Practice of Medicine, and Dr. Silver Lecturer on Clinical Medicine, at the Charing Cross Hospital Medical School.

DR. J. BURDON SANDERSON, F.R.S., has been appointed Jodrell Professor of Human Physiology (including practical physiology and histology) in University College, London, vice Dr. Sharpey, who has resigned the Chair of Anatomy and Physiology.

THE Earl of Aberdeen presided at a meeting of the City of London Orthopaedic Hospital on Wednesday last. 23,501 cripples, chiefly children, have been treated at this institution since its opening. An appeal was made for funds, of which it seems much in need.

AN out-door fête was held in the gardens of the Home for Incurables on Thursday last, for the purpose of assisting the work of this charity. Unfortunately, the weather was so unpropitious that few went, and those who braved the downpour contented themselves with an inspection of the wards.

THE Medical Council will assemble on the 10th of July, and the meeting will probably be a long one. There will, of course, be not question of a Medical Bill,

but Conjoint Examination Schemes will probably be the subject of lengthened discussion, and the position of the Scotch and Irish corporations will be all the worse in the matter because the English licensing bodies have demonstrated the practicability of unity in examination. Of course the Scotch representatives and Sir Dominic Corrigan will reproduce their arguments against reform of curriculum and examination, but they will probably not succeed in preventing the Council from reiterating their demand for a further effort at conjunction by the Scotch and Irish bodies. We believe that the reports of the visitors of examinations which are about to be presented to the Council are unwontedly forcible, and that they will probably give rise to a great deal of criticism upon the tests of proficiency proposed by some of the colleges.

The Irish Apothecaries' Hall, and the anomalous position which it occupies as a medical licensing body, will also probably be the subject of debate, and Dr. Leet, the representative of the Company, may be obliged to listen to some wholesome truths.

THE annual Harveian Oration, at the Royal College of Physicians of London, was delivered on Saturday afternoon by Dr. West, F.R.C.P., before Sir George Burrows, the President, and a large body of the profession.

THE Dublin corporation decided on Saturday to postpone the consideration of the main drainage scheme until they shall have fixed, in accordance with the Duke of Abercorn's suggestion, on some plan for the immediate purification of the Liffey.

DR. TOLOZAN, Physician to the Shah of Persia, has been elected a corresponding Member of the French Academy in the section of Medicine and Surgery, and M. Studer, of Berne, in that of Geology. The latter is a veteran of 79 years.

IN the House of Commons on Friday the Chancellor of the Exchequer, in reply to Mr. Ellice as to whether the Government had considered and come to any decision relative to the question of extending to pauper lunatics confined in licensed wards of poor-houses, or boarded out under authority from the Board of Lunacy in Scotland, the benefit of the allowance proposed in his statement upon the Budget to be given in respect of pauper lunatics confined in asylums, said that some of the regulations made in Scotland seemed to present a case for fuller consideration, and he would hold communication with the authorities in Scotland before coming to a final conclusion.

IN the House of Commons on Friday the Government was asked to interfere with the adulteration of Irish whisky with an inferior and injurious spirit from Scotland while the former was in bond. The Chancellor of the Exchequer replied that it was impossible to prevent such mixing; all the Government could do was to see that the spirit left the Stores branded with its proper mark as to what it really was; after this was done the public and manufacturers must look after their own interests.

### Cookery.

WE were pleased to observe that Sir Charles Reed, the Chairman of the School Board for London, announced at a late meeting of that body that a letter had been addressed to him by Mrs. Baines, stating that she was prepared to hand over to the Board the sum of 100 guineas, to be devoted to the offering of prizes for essays or manuals on cookery and household work suitable for the use of Board teaching. The letter was referred to the School Management Committee. It was subsequently announced that the offer had been accepted.

Sickness is often aggravated—nay, death may be caused—by the ignorance of those who prepare the food for invalids. This ignorance is fostered by wrong teaching and practice. Practical lessons in cookery can only be useful to illustrate the theory of the subject; the “why and because” of the art should be known, and can be reduced to very simple lessons. The present race of cooks are bad cooks, because they do everything mechanically, by imitation, without any real knowledge of the science of cooking. Mrs. Baines deserves the hearty thanks of all for her gift.

### The Heart in Poisoning by Arsenic.

ECCHYMOSIS of the left ventricle of the heart, or, as otherwise designated, sub-endocardial ecchymosis, is regarded by some as pathognomonic of poisoning by arsenic. Since Dr. Bonavia called attention to this livid and bruised appearance in 1866 several Indian medical officers have recorded analogous cases; these have from time to time appeared in the *Indian Medical Gazette* (vol. i., pp. 252, 302, vol. ii., pp. 120, 75, 84, vol. viii., p. 64), and in the new number of that journal we find an account of the post-mortem examination of the bodies of six individuals who died from poisoning by arsenic, recorded with care by Assistant-Apothecary Mr. Alfred Wright, of the Mysore Commission.

On analysis only four of the six presented this condition in confirmation of Dr. Bonavia's observations.

Surgeon E. O. Tandy described, in March, 1873, in the same journal, a case in which “the heart was full of coagulated blood, natural in size and appearance, with the exception of the left ventricle, the interior of which presented an appearance I had never seen before; there was no sign of inflammation, but in the muscular structure of the ventricle and in the columnæ carniæ there were extravasations of bluish blood resembling recent bruises.”

In 1829 attention was drawn to the state of the heart, particularly the left cavities, for Christison wrote: “It has been stated that the inner surface of the heart has been found red from inflammation. In a case examined judicially at Paris by Orfila, the left cavities of the heart were of a mottled red hue, and in the ventricle were seen many small crimson specks which penetrated into the muscular part of the parietes. Orfila adds that he had previously seen the same appearances in animals (‘Archives Générales,’ i., 147). These observations are not quite satisfactory.

“There is no evidence that the observer drew the distinction between the redness of inflammation and that produced by the dyeing of the membrane with the blood after death. The subject was lately brought before the Royal

Academy of Paris by M. Godard, who had also observed the appearance in question in a person killed by arsenic, and who dwelt strongly on it as characteristic of this species of poisoning. It was distinctly proved, however, by many members present, that the appearance arises from many other causes.”

In respect to the preceding observations made by MM. Orfila and Godard, Mr. Wright says—“What then is the dyeing here spoken of? May it not have been the real pathognomonic condition *sub-endocardial ecchymosis* of Dr. Bonavia, but, from the observations advanced being novel and unsupported either from want of opportunities or special facts by other observers, was not maintained,” and he thinks that Dr. Bonavia has clearly shown and placed beyond all doubt that this appearance is characteristic of poisoning by arsenic.

IN the House of Commons on Thursday, in reply to Mr. Stacpoole, Mr. Gathorne Hardy said that an order on the subject of the exchange of army medical officers was issued in March, 1843. Since that time exchanges had not been encouraged, although there had been exchanges under the existing system.

## STUDENTS' COLUMN.

### LECTURES ON HUMAN ANATOMY.

By WALTER RIVINGTON, M.S. Lond., F.R.C.S. Eng.,  
Surgeon to the London Hospital and Lecturer on Anatomy at the  
London Hospital Medical College.

#### LECTURE X.

(Continued from page 536.)

*Meaning of the term Thorax—Composition of the Thorax—Modifications of the Thorax among the Classes of Vertebrates—Description of the Sternum—Its Peculiarities of Shape and Structure—The Ribs—Classification—Anatomical Description and Movements—Differential Characters of the Ribs—Special Features of the 1st Rib—The Costal Cartilages—Specimens showing 8 Ribs joining the Sternum—Structure of the Costal Cartilages—Meaning of the term Rib.*

GENTLEMEN,—The Greek word *θώραξ* signified a breastplate, cuirass, or corselet, and was subsequently applied to the parts covered by the breast-plate, or the whole forepart of the body, from the neck to the middle, containing the liver. (a) Still later the term was restricted in medical writings to the breast proper, or chest. As it is now used it means the bony and cartilaginous framework or cage circumscribing the cavity of the chest, and forming part of the boundary of the abdomen.

The osseous walls of the Thorax are composed of thirty-seven bones. In front is the Sternum, or Breast-Bone, behind are the twelve Dorsal Vertebrae, at the sides the twelve pairs of Ribs and their appended Cartilages. The osseo-cartilaginous case thus formed has the shape of a truncated cone with the larger end downwards. It is slightly flattened from before backwards, and open above and below. In the well-built adult its transverse diameter exceeds its antero-posterior, for the purpose of preventing the spinal column from being overloaded in front. This is an obvious adaptation to that erect attitude which is shared by man with the penguin and the kangaroo. A complete Thorax is not to be found in all vertebrate animals. It exists in beasts and birds without exception. In fishes, amphibia, and reptiles, the Thorax is incomplete. Frogs and toads have no ribs; their breathing out of water is a kind of swallowing. They take air into

(a) Liddell and Scott's Greek Lexicon.



their mouths, close the throat and nostrils, and force the air into the lungs. The absence of ribs allows them to compress the body by muscular action and expel the air. This power of compression also enables them to sink in water, and spend the winter in their favourite subaqueous mud. Were it not for this the animals would remain on the surface of the water, "as when cruel boys blow them up with a straw." Serpents have no Sternum, all their Ribs are false Ribs, and are modified for locomotion. With the ends of the Ribs are connected horny plates, and it is by the successive application of the edges of these plates to the ground that they glide noiselessly along. Fishes have few or many Ribs, but are destitute of a Sternum. In Man and in the Mammalia generally, the lower opening of the Thorax is closed by an arched muscular partition called the Diaphragm, which divides the cavity into two parts, an upper part, or Chest, which contains and protects the Heart and Lungs, and a lower part, forming a portion of the Abdomen, and giving shelter and support to some of the organs of digestion, notably the Stomach, Liver, and Spleen. Had the Thorax been intended merely as a protecting structure, this purpose would have been better fulfilled by its being formed as the Pelvis is formed, of strong bones knit almost immovably together, or we might have been clad like the tortoise, in an impenetrable case, inseparably joined to the Ribs, Sternum, and Vertebrae, with leave and licence to retract our heads and necks and feet, and to emerge, as occasion might require, in the easy course of a life of some 200 years. (a) Even as it is, there would appear to be a good deal of the nature of the tortoise in human organisation. Pope tells us :

But the brevity of human life, gentlemen, must be compensated for by activity, and an active mode of life requires activity in the breathing function, and activity in the breathing function requires that the Thorax should be constantly altering its dimensions, and to allow this alteration in its dimensions it is composed of many arched and elastic segments united by movable joints with the vertebral and sternal columns. "The Thorax" says Schellhammer, "forms a kind of bellows such as never have been nor probably will be made by any artificer." (b) The perfection of this instrument can only be understood by a thorough mastery of the dry details of its component parts—*Nil sine labore Deus dedit mortalibus*.

The Sternum, or Breast-bone, is a long flat bone, composed of a series of segments, from which circumstance it is sometimes termed the *Sternal Column*. Like the flat bones in general, it is constructed of two layers of firm compact bone enclosing cancellous tissue. Sloping from above downwards and forwards, and slightly arched in front, it occupies a central position in the anterior wall of the Chest, protecting the Heart and great Blood-vessels which lie behind it, supporting superiorly the Collar-bones, or Clavicles, and receiving on each side the Cartilages of the true Vertebro-sternal ribs.

The term Sternum is derived from the Greek *στένον*, signifying the Breast, or Chest. The bone itself was likened by the fathers of anatomy to a small Roman sword. The upper part of the Sternum represents the *Handle*, or *Manubrium* (*Manus*, a hand), the middle corresponds to the *Blade*, and is called the *Gladiolus* (diminutive of *Gladius*, a sword), and the lower part, which is the point of the sword, is called the *Ensiform*, or *Xiphoid Cartilage*, or Appendage. *Ensiform* is derived from the Latin *Ensis*, a sword, and *Forma*, likeness, and *Xiphoid* from the Greek *ξίφος*, a sword, and *ειδος*, likeness. Both the Latin *Ensis* and the Greek *Xiphos* were straight two-edged swords. The *Manubrium*, in scientific phraseology, is termed the *Pre-Sternum* (Fore-Sternum), the *Gladiolus* the *Meso-Sternum* (Mid-Sternum), and the *Ensiform Cartilage* the *Xiphi-Sternum*.

(a) "The great longevity of these creatures seems to be one of the most remarkable circumstances in their history. One is recorded as living at Peterborough whose age must have been about 120 years. Bishop Marsh's predecessor in the see of Peterborough had remembered it about sixty years, and could recognise no visible change. He was the seventh bishop who had worn the mitre during its sojourn there."—Patterson's "Zoology for Schools," p. 305. Pennant says that a tortoise introduced into Lambeth Palace, in 1633, lived till the year 1753, the time of Archbishop Herring, and might have lived much longer if it had not been accidentally killed by the negligence of the gardener.

"Most souls, 'tis true, but peep out once an age,  
Dull sullen prisoners in the body's cage;  
Dim lights of life that burn a length of years,  
Useless, unseen, as lamps in sepulchres;  
Like Eastern kings a lazy state they keep,  
And close confined to their own palace sleep."

*Elegy to the Memory of an Unfortunate Lady.*

(b) Paley's Natural Theology.

In length the Sternum of the adult male measures from 7 in. to more than 10 in., the Manubrium contributing 1½ in. to 2½ in., the Gladiolus 3 in. to 5 in., and the Ensiform Cartilage 1 in. to 3 in. (a) In width it varies at different points

(a) The following are my measurements of individual specimens coming under my notice :—

#### 1. MEASUREMENTS OF FRESH STERNOA IN THE POST-MORTEM ROOM.

##### ADULT MALES.

No.	Age.	Length.		Man.		Glad.		En.	
		In.	Lines.	In.	Lines.	In.	Lines.	In.	Lines.
1	55	9	3						
2	—	9	3						
3	70								
4	55	7	9						
5	68	9							
6	62	9	6						
7	—	10							
8	—	8	6						
9	—	8	6						
10	63	10	2						
11	58	9	9						
12	—	7	6						
13	24	8	6	1	9	4	9	2	
14	30	10		2	6	5		2	6
15	44	8	6						
16	62	9	6						
17	60	10	6	2	9	5	3	2	6
18	75	8	5	2	3	4		2	2
19	—	8	1						
20	73	7	3						
21	35	9		2		4	6	2	6
22	55	9							
23	51	8							
24	22	8	6	2	6	4		2	
25	69	8		2	2	3	7	2	3
26	27	7		2	3	3	6	1	3
27	39	8	6	2		4	3	2	3
28	33	8	9	2		4	6	2	3
29	51	9	6	2	3	4	9	2	6
30	62	9							
31	36	9	3	2	6				
32	65	8	3						
33	53	7	6						
34	19	6	9						
35	44	9	3						
36	62	8	2						
37	58	8	6	1	10	4		2	8
38	56	7	2						
39	34	8	6	2	6	4		2	
40	73	8	9	2	9				

Gladiolus and  
Ensiform united  
by bone.

Gladiolus and  
Ensiform united  
by bone.

##### ADULT FEMALES.

No.	Age.	Length.		Man.		Glad.		En.	
		In.	Lines.	In.	Lines.	In.	Lines.	In.	Lines.
1	—	7	9						
2	—	8	3						
3	—	8							
4	27	8	6						
5	36	8	6						
6	—	9	1						
7	37	8	6						
8	45	7	6						
9	58	7	6						
10	—	9	1						
11	—	8	4						
12	74	7	7						
13	29	6		2	2	2	10	1	
14	25	7	2	2		3	2	2	
15	28	8	8	2	2	4	3	2	3
16	41	7	3	1	9	3	9	1	9
17	48	7	7						
18	40	7	7	2		3	6	2	1
19	73	8	3						
20	39	7	7						
21	27	7	8	1	10	3	5	2	



and in different specimens. It is widest in the Manubrium between the Cartilages of the 1st pair of Ribs, and then narrows to the 2nd pair. Below the 3rd pair of Ribs it begins again to widen to the 5th pair, and then narrows again to the Ensiform Cartilage, which is usually narrower than the rest of the bone. In some specimens the Gladiolus is tolerably uniform in width throughout, and presents no enlargement at the lower end. The dimensions in all directions are less in the female. The Sternum is developed from a single and continuous piece of Cartilage in 6 different bony segments. In position the Manubrium is the 1st, and the Ensiform Cartilage the 6th piece. The Gladiolus is composed of 4 pieces. These 6 segments remain separate from one another for many years. The 2 lower pieces of the Gladiolus are the first to join, but the whole Gladiolus is not complete till about the age of 40. The Manubrium and Ensiform Cartilage may both be distinct from the Gladiolus in very old age, or one or both may be joined. I am unable positively to say which is joined first, for we have about an equal number of specimens showing on the one hand the Manubrium and Gladiolus united, and the Ensiform Cartilage distinct, and on the other the Gladiolus and Ensiform Cartilage united and the Manubrium distinct. There are several showing the three pieces united, and a great many more which maceration has separated into the Manubrium, Gladiolus, and Ensiform Appendix (a). The Ensiform Cartilage generally ossifies imperfectly, its extremity continuing cartilaginous throughout life.

The Sternum may be described as a whole, or the three pieces may be taken separately. Adopting the former, but perhaps less natural method, we observe that it presents two surfaces, anterior and posterior, two extremities, and two lateral borders.

## 2. MEASUREMENTS OF DRIED SPECIMENS IN THE MUSEUM OF THE COLLEGE.

### a. Sternum without Ensiform Cartilage attached, 3 Specimens.

No.	In.	Lines.	Man.	Glad.
1	6	3	1	9
2	5	9	1	11
3	4	11	1	9

### b. Sternum entire, 3 Specimens.

No.	In.	Lines.	Ensiform being 1 inch.
1	7	6	
2	8	6	" "
3	7	9	" "

### c. Gladiolus only, 16 Specimens.

No.	In.	Lines.	No.	In.	Lines.	No.	In.	Lines.
1	3		7	4		13	4	6
2	4	6	8	2	10	14	4	6
3	4		9	3	2	15	3	5
4	4	6	10	3	10	16	3	5
5	4		11	3	2			
6	4		12	4				

### d. Manubrium only, 4 Specimens.

No.	In.	Lines.
1	2	6
2	2	3
3	2	2
4	1	11

(a) Ossification sometimes takes place in the Cartilage joining the Manubrium and the Gladiolus at an early age. I have seen it converted into bone at 34 and 36 years of age. The Cartilage joining the Gladiolus and Ensiform Appendix is also liable to early ossification. In both the specimens alluded to above the Ensiform Cartilage and Gladiolus were united by bone. I have also seen the Ensiform Cartilage joined by bone to the Gladiolus when the Manubrium and Gladiolus were distinct from each other. This occurs in two separate orders of specimens—first, in all that class of Sterna in which a gliding joint is found between the Manubrium and the Gladiolus, for in this class I believe that ossification never takes place at the upper sternal joint; secondly, in some Sterna in which an amphiarthrodial joint exists between the Manubrium and Gladiolus. Thus, in a male of 30 the Manubrium and Gladiolus were united by Cartilage, but the Ensiform Appendix and Gladiolus were united by bone. In a male of 44, the Cartilage joining the 3 upper segments was nearly ossified, and the Cartilage joining the two lower segments was completely ossified. Again, in males of 53, 56, and 73, and in females of 41 and 56, I found the upper Cartilage entire, but the lower ossified. On the other hand, I have not noticed in any fresh specimen the Manubrium joined to the Gladiolus by bone, whilst the Ensiform Appendix was united only by cartilage. Hence, I think we may conclude that the Ensiform Cartilage is generally the first to unite by bone to the Gladiolus. That it does not always do so is shown by those dried specimens to which I have alluded above, in which the Manubrium and Gladiolus are united, but the Ensiform Cartilage is distinct.

The anterior surface is either flat or convex from above downwards. In some specimens the bone will lie evenly, or nearly so, on its posterior surface on the table, whilst at others it forms an arch, resting on its two extremities. I believe that the female Sternum is generally less arched than the male. The highest point of the arch varies between a few lines and as much as an inch or more, and is situated at or near the junction of the Manubrium with the Gladiolus. On the anterior surface we notice the narrowed junction of the Manubrium with the Gladiolus, and five transverse lines or indications of the points of union of the several segments. It is by no means uncommon to find the junction of the Manubrium and Gladiolus marked by an elevated ridge, and such a ridge may exist between the third Costal Cartilages, especially when the bone is unusually curved. Muscular impressions may be observed in some specimens. The Posterior Surface is concave, smoother than the anterior, and showing less distinctly the transverse lines alluded to. The Superior Extremity or Border is thick, and has a notch in the centre, which, being placed between the Clavicles, is termed the Inter-clavicular Notch. It allows more room for the Trachea, or Air-Tube. Flanking the notch on each side is a concave cup-like surface, which looks upwards, backwards, and outwards, and articulates with the sternal or inner end of the Clavicle. The Inferior Extremity will be presently noticed.

The Lateral Borders present the facets or depressions for the Costal Cartilages, and between them the intervals which form the anterior ends of the Intercostal Spaces. Beginning from above, we observe below the clavicular facet a depression for the 1st Rib—followed by a concave border which slopes downwards and inwards to the cup-shaped depression for the 2nd Rib formed by a demifacet on the lower angle of the Manubrium and a demifacet on the Gladiolus. Then follow the cups on the Gladiolus for the 3rd, 4th, 5th, and 6th Costal Cartilages, separated by intervals diminishing gradually in depth. The 5th, 6th, and 7th depressions are very close together, the 7th being formed partly by the Gladiolus and partly by the Ensiform Cartilage. The prevailing shape of these cavities is similar to that of notches cut out of a stick. It is extremely interesting to observe that the mode in which the Ribs join the Sternum corresponds very closely with their manner of articulation with the Vertebrae. Thus, the 1st Rib, which is jointed to only one, the first Dorsal Vertebra behind, is united in front by means of its cartilage to a single piece of the Sternum, the Manubrium. The 2nd, 3rd, 4th, 5th, 6th, and 7th Costal Cartilages articulate with two contiguous segments of the Sternum just as the heads of the Ribs articulate with two Vertebrae; the 2nd with the Manubrium and the 1st piece of the Gladiolus; the 3rd with the 1st and 2nd pieces of the Gladiolus; the 4th with the 2nd and 3rd; the 5th with the 3rd and 4th, and the 7th with the 4th piece of the Gladiolus and the 6th of the Sternum or Ensiform Cartilage. The 6th is the "exception which proves the rule." It joins the middle of the 4th piece of the Gladiolus. Possibly Nature intended to have another segment to the Gladiolus, but failed satisfactorily to accomplish her purpose. At the lower part of the Gladiolus she waxes a little weak occasionally in her developmental efforts, and leaves an aperture persistent throughout life. Here is a specimen of this imperfection: a small round hole is left between the cups for the fifth pair Ribs. Here is another in which the hole is between the sixth Ribs.

A deficiency of this nature may extend throughout the Sternum, which is then divided into two parts by a median fissure. The case of M. Groux is well known. He exhibited himself in London some years ago. His Sternum was cleft from top to bottom in the middle line. He could narrow the fissure by bringing his hands together, or enlarge it till it was between two and three inches wide. It was covered by skin and fascia, and gave him little inconvenience. When the soft parts are also deficient and the thoracic cavity is open, exposing the Heart, the deformity is exceedingly severe; such a condition is called Ectopia Cordis. Instances of deficient formation with Prolapse of the Heart have been described. "In this prolapse the heart may protrude either alone or in connection with other thoracic and abdominal viscera at the neck, or in the absence of the breast-bone and through congenital holes and clefts of that bone, either higher or lower upon the breast, or close under the point of the breast-bone and at the top of the belly." (a)

The Ensiform Cartilage is very variously shaped, often unsymmetrical, and often distorted. It averages, it is said, about

an inch in length; but several specimens before me are more than two inches long. In this specimen it is broad and truncated below. In this specimen it is three quarters of an inch wide above for the distance of an inch, and ends in a narrow pointed process an inch in length. In this specimen it ends in two prongs nearly equal and parallel; and in this in two prongs of unequal size, the longer prong continuing a nearly straight course downwards, and the other being deflected to one side. In this specimen it tapers gradually from above downwards.

It is often perforated by a hole, either large or small, and rarely by two. The Ensiform Cartilage is not very readily felt in the living subject. It is sometimes depressed below the level of the anterior surface of the Sternum, or the cartilages of the Ribs project in front of it, or it is embedded in the soft structures connected to it. (x)

It affords some little protection to the Stomach, and attaches the Muscles of the Abdomen, its own ligaments, and an important band of white fibrous tissue which extends from its extremity in the middle line of the Abdomen to the Pubes. This long central ligament is called the *Linea Alba*, or *White Line*, from its structure and appearance, and may be regarded as the continuation or abdominal representative of the Sternum—a view corroborated by the fact that in some subjects the Ensiform Cartilage may extend down to the navel. In a monster it has been seen to reach the Symphysis Pubis, with which it formed a cartilaginous union. The distortion of the appendage often observed may be produced in certain occupations by pressure applied to the "pit of the stomach."

## Correspondence.

### THE EXPECTED MEDICAL BARONETCY.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—In the last few numbers of your excellent journal I have seen letters in which the writers express a hope that the eminent Dublin physician, Dr. Wm. Stokes, should be made a baronet. I beg to say that I most cordially agree with all that is said in those letters in favour of Dr. Stokes receiving this distinction; and in giving this opinion I believe I am not only expressing the feeling of the members of this profession everywhere, but of the general public. The medical teaching in Dublin has always been considered of a high order; and for more than the last thirty years Dr. Stokes has been one of the most learned professors in that city.

He has also been a distinguished hospital physician and a well-known author. It has been remarked that the members of the medical profession in Ireland have not received the same distinction as their brethren in England. It is now, however, confidently hoped that they will not have much longer to complain, and that our present Government will make some recognition of the public claim and worth of Dr. W. Stokes.

I am, Sir, your obedient servant,

ABRAHAM KIDD, M.D., M.R.I.A., L.K.Q.C.P.I.

Ballymena, June 25th, 1874.

### PHARMACY IN IRELAND.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

DEAR SIR,—I enclose you the copy of a circular which has been sent to every Irish Member of Parliament. In addition to the observations contained in it, will you permit me to make the following remarks:—

When Dr. Leet stated some time ago, "that there were, to his knowledge, from twenty-eight to thirty of the most important towns of Ireland, with populations varying from 10,000 to 50,000, wherein there was no apothecary or competent person qualified to compound medicine," he evidently erred egregiously, since there are not more than sixteen towns in all Ireland (according to the Census of 1861) whose population exceeds 10,000, and in every one of these a sufficient number of apothecaries exist for all requirements, so that no inconvenience can result.

(a) Of 34 Ensiform Cartilages, 10 were single and perforated, 13 single and without perforation, 10 bifurcated either equally or unequally, and 1 tripartite.

Ireland at present has no need for Pharmacy Acts such as those passed for England in the years 1852 and 1868, for, whereas in the latter country there was urgent necessity to regulate the practice of pharmacy, since any uneducated person might open a shop to compound and dispense medicines before those Bills were passed, and the Pharmaceutical Society of Great Britain was formed to raise the standard of pharmaceutical education, in this country the standard does not require to be raised, but only modified for the future by the omission of purely medical and surgical subjects from the curriculum prescribed.

The fifteenth clause of the proposed Pharmacy Bill of the Apothecaries' Hall is most objectionable. There is no reason whatever why a druggist in Ireland should not pass through exactly the same ordeal as any other candidate for a pharmaceutical licence. There is no such dearth of competent dispensers throughout the country as to demand the admission of such an imperfectly educated class.

Furthermore, druggists in Ireland labour under no disability, seeing that they have never been legally entitled to dispense medicines, nor have they entered into business with such an intention, unlike the "chemists and druggists" admitted by the English Pharmacy Acts of 1852 and 1868.

I trust these considerations will convince you that our opposition is not of a vexatious nature, and that we seek only what is equitable for the public as well as for ourselves.

Yours faithfully,

Trinity Street, Belfast,  
24th June, 1874.

REUBEN BOLTON.

### PHARMACY IN IRELAND.

May, 1874.

SIR,—As it is intended to introduce into Parliament during the present session one or more bills, to change the law relating to pharmacy in Ireland, we have been directed to request earnestly your careful consideration of the following statements by the Association of Licentiate Apothecaries of Ireland, whose prospects would be vitally affected by the proposed alterations.

By virtue of the Act of Incorporation of the Apothecaries' Hall of Ireland, dated in the year 1791, its licentiates "are the only persons in Ireland who can legally keep a shop for the compounding and dispensing of medicines, and the only practitioners in Ireland who can recover for medicines furnished on the prescriptions of other medical men."

In order to secure the foregoing privileges, it has been necessary for nearly the last forty years that every candidate should be engaged for at least three years at practical pharmacy, that he should spend four years at professional study, and pass examinations sufficient to qualify for a licence in medicine. The diploma then granted is a legally recognised medical qualification throughout the Queen's dominions, and entitles the holder to practise both pharmacy and medicine; but every Irish apothecary must undergo this protracted and expensive course of instruction even to practise pharmacy only, to which a large number of them confine their attention, and are, consequently, entirely dependent on compounding and dispensing medicines for subsistence. It is not contended that the law should still continue thus; but the simple fact is, that the present licentiates have found it so, and have been compelled to conform to it.

To permit any less educated class of pharmacists to attain to the same legal rights (a result sought by the framers of the proposed pharmacy bills) would be virtually to disestablish and disendow the existing Irish apothecaries.

In any legislation on the subject the licentiate apothecaries seek—

1. *Recognition of their vested rights, and compensation from the State for the unnecessary outlay of time, labour, and money to acquire their qualifications in the past, and injury to their interests in the future, by the admission of a lower grade of pharmacists to the same privileges as dispensers of medicine.* A precedent for this exists in the case of the Irish proctors, who were granted compensation when their office was abolished.

2. *The foregoing being conceded, they suggest that the Apothecaries' Hall in Ireland for the future should grant but one licence, and that in pharmacy only, to obtain which the candidate should not be required to attend lectures upon, or be examined in, such subjects as anatomy and physiology, surgery, medicine, or midwifery—which are quite superfluous; but that the standard in the subjects essential to a sound*

pharmaceutical education (such as chemistry, botany, materia medica, pharmacy, &c.) should be as high as possible.

For the public benefit, as well as in ordinary justice to themselves, therefore the members of the Association of Licentiate Apothecaries of Ireland beg, that when either of the proposed Pharmacy Acts shall be introduced into Parliament, you will kindly assist them by your vote and influence to effect these objects, if necessary, by the reference of the entire question to a Select Committee of the House of Commons.

We have the honour to be, Sir,

Your very obedient servants

(Signed on behalf of the Association of Licentiate Apothecaries of Ireland),

JAMES CAHILL, for Kells	J. MACSWINNEY, for Galway
PHILIP M. COOKE, „ Ennis-	J. MANSEGH PALMER,
corthy	for Armagh
WILLIAM COOKE, „ Gorey	JAMES FALLON, „ Athlone
ANDREW CURRIN, „ Naas	CHARLES H. COOPER,
JOHN H. HADDEN, „ Wex-	for Bandon
ford	ROBERT N. LOWE, „ Water-
E. J. HARMAN, „ Lurgan	ford
JOHN JEFFERSON, „ Lisburn	OLIVER J. LONG, „ Portar-
GEORGE McCAL, „ London-	lington
derry	JOSEPH M. ORMSBY,
JOHN H. McMANUS,	for Roscommon
for Longford	MATTHEW MULVANY,
BENJAMIN MORROW,	for Dundalk
for Downpatrick	DAVID O'SULLIVAN,
EDWARD J. BROCK,	for Killarney
for Dublin	JOHN QUIRK, „ Tullamore
REUBEN BOLTON, „ Belfast	
WILLIAM HARRINGTON,	
for Cork	

## ESTIMATION OF TOTAL NITROGEN IN UREA.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—I am sure you will excuse me for again trespassing on the space allotted to correspondents in your very valuable journal, but as Professor Reynolds has thought fit to imagine I overlooked his experience in organic chemical analysis, allow me to say that I had no idea of provoking a controversy on chemical subjects, but that I had at least a *twofold* reason for noticing his paper on the "Estimation of the Nitrogenous contents of the Urine"—firstly, a desire to save him the trouble of conducting a series of experiments which might be more easily determined; and, secondly, to uphold the fair fame of my own countryman, Dr. Davy, for I cannot imagine a more simple and beautiful mode of determining the amount of nitrogen in the urine than that proposed by him.

As to the late Baron Liebig's process for estimating the amount of urea in the urine, it would indeed be the efforts of a pigmy intellect to detract from his great genius, as neither praise nor censure can affect the memory of that colossus of modern chemistry, which will be a beacon for the light of future generations in both organic and inorganic chemistry; but, as I recollect when a lad attending a lecture on the atomic theory, delivered at the Royal Dublin Society, by the late Professor Higgins, in which he waxed very warm, earnestly contending that the late Dr. Dalton, of Manchester, had filched all his ideas on that beautiful theory (in making which complaint I now believe he was quite justified, having read Dr. Higgins's work on that subject, which I have in my possession), in a similar manner I thought Professor Reynolds had ignored Dr. Davy's mode of analysis for the determination of nitrogen in the urine.

I shall now address myself particularly to Professor Reynolds's remarks, which I think are deserving attention. As to his first—viz., that I ignored his plan for fixing the ammonia by sulphuric acid, it appears to me to be quite irrelevant, as the soda-lime process for the determination of nitrogen, which he employs in the first stage, has been shown by Leegan and Novak to be quite inaccurate for the correct estimation of nitrogen in different nitrogenous compounds of animal origin, a statement which Professor Reynolds has completely passed over without comment. As to his second remark, alleging certain defects in Dr. Davy's test, I may observe he goes on mere assertion without proof.

But to return to the method proposed by Professor Reynolds

(independent of all other objections), I cannot conceive anything more fallacious than the depth of the brown tint produced by Nessler's test being taken as the means of estimating the amount of ammonia furnished in the first stage of his process, as everyone knows that the observance of the shade or depth of colour developed in any chemical reaction must be a most unreliable method of quantitative analysis, and could only give results on which any dependence might be placed, when obtained by those in the constant practice of such colour examinations; but granting that Professor Reynolds's method, when carefully executed, was free from all sources of error, the amount of time and the manipulative skill required for its performance appears to me to limit its use altogether to the professional chemist, or to one skilled in chemical analysis; but as most of our practising physicians cannot afford the one, and do not possess the other, such a process is, to them, practically useless. Such objections, however, cannot be urged against Dr. Davy's simple and expeditious method, and as I am thoroughly satisfied with it I shall continue to employ it in my analyses till I am convinced that it has been superseded by a better one, and I leave to others the discussion of the comparative merits or demerits of the different processes which have been proposed for the determination of the nitrogen in the urinary secretion, as I have no leisure or inclination to carry on such a controversy.

Thanking you, Mr. Editor, for allowing me space in your overcrowded columns,

I am, Sir, your obedient servant,

R. AUSTIN, M.D.,

5 Cullenswood Terrace, Ranelagh. Medical Analyst.

## THE PATHOLOGY OF THE ARTERIES IN BRIGHT'S DISEASE.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—In the last number of your journal there is a lecture on Bright's disease, by Dr. Campbell Black, which contains some inaccuracies as to the views of Dr. George Johnson on the subject of the changes produced in the vascular system by chronic Bright's disease.

Dr. Johnson's views are so important, and light up so clearly the condition of the vascular system in this renal change, that it is desirable that the matter be put fairly before the public. The lecturer first says: "Dr. George Johnson claims to have discovered thickening of the arteries in this affection in 1850, but Rayer, Bright, and succeeding writers described the same condition long antecedent to the period in question." Neither in my perusal of Dr. Johnson's valuable writings nor in my personal intercourse with him have I ever known such claim preferred by Dr. Johnson, and I do not believe it exists. What Dr. Johnson does claim, and very properly too, is that he was the first to point out that the muscular walls of the arterioles are hypertrophied in chronic Bright's disease, a very different matter from the vague term "thickening."

The next inaccuracy is a curious mis-statement. It runs so: "Dr. Johnson has ascribed the hypertrophy of the left ventricle to obstruction to the renal circulation, . . . but the explanation seems to me to carry its own refutation on the face of it." In reality, this is an old view of Prof. Traube's, of Berlin, published by him in 1855 in a very interesting paper on the connection (Zusammenhang) of kidney disease and heart disease. At that time Traube held the view that the obstruction offered to the circulation in the kidney by its shrinking (Nieren schrumpfung) was the cause of the heightened arterial tension and the hypertrophy of the ventricle found so commonly under these circumstances. Traube's more recent views hold this renal obstruction as but a small factor in the production of the increased arterial tension. He now holds that the obstruction caused by the hypertrophy of the muscular walls of the systemic arterioles is the chief factor, the view always held by Dr. George Johnson.

I am in a position to state that these similar opinions were arrived at separately, but certainly Dr. Johnson has the priority.

Dr. Johnson's position is this. The muscular walls of the arterioles are excited to contract by the stimulus of the abnormal blood of advanced kidney disease. This contraction of the arterioles obstructing the blood flow leads to increased arterial tension, and this in its turn evokes hypertrophy of the left ventricle.

He has repeatedly demonstrated the existence of hypertrophy of the muscular walls of the arterioles in chronic Bright's disease, and on this anatomical fact his theory is based.

Dr. Johnson's explanation lights up distinctly the vascular changes and their indications—viz., the increased arterial tension felt by the trained finger and demonstrated by the sphygmograph, the accentuation of the aortic second sounds so commonly found in chronic Bright's disease, and forming so important a matter in erecting a diagnosis (Rosenstein, "Die Pathologie und Therapie der Nieren Krankheiten," p. 139, 2nd edition, 1870), the hypertrophy of the left ventricle, producing the usual signs, and the tendency to apoplexy from the distension (Ueberspannung) of the arteries in this condition.

I am, Sir, yours truly,

J. MILNER FOTHERGILL, M.D., M.R.C.P. Lond.

22 Lower Seymour Street, London, W.

## Medical News.

**Lady Students at University College.**—At the adjudication of prizes at University College, London, last Wednesday, the first prize in Jurisprudence was awarded to a young lady who two years ago, at the same college, achieved a like success in Political Economy. The second place in the same class was attained by another lady. Another obtained honours in Political Economy; and prizes were gained by three, and certificates by several, in the Fine Arts classes. That women should prove themselves quite equal to men in drawing and painting is, perhaps, less remarkable than their success in sterner studies; but it is noteworthy in these days when fresh consideration is being given to the question of female education. The experiment of mixed classes has as yet been only very partially tried at University College, and its extension through the whole of the Arts School would involve none of the peculiar difficulties that have been incident to the attempt to teach medicine to ladies in Edinburgh. The Senate of the University of London is soon to consider the recent vote of Convocation in favour of admitting women, on the same conditions as men, to its degree examinations. If a woman competing at college with men can take prizes in Political Economy and Jurisprudence it is hard that she should not be allowed the chance of obtaining a degree in Arts or Laws.—*Athenæum*.

**Vaccination Grant.**—The Local Government Board, on the report of the inspector of public vaccination, have awarded Dr. Waring Curran, Medical Officer of the Mansfield Union, Notts, the sum of £5 7s. 4d., for successful vaccination as performed in Dr. Curran's district.

## NOTICES TO CORRESPONDENTS.

### SPECIAL NOTICE.

THE Publisher will be glad to receive arrears of subscription for last and previous years. He regrets to state that there are still several gentlemen against whose names there are as many as four and five years' arrears standing, and who have had repeated applications for payment by letter made to them without any response. He thinks such should not be the case in an honourable profession.

Dr. W. HAYNIE, Batesville.—Subscriptions to America must be paid in advance. We can make no exception to this rule.

Dr. M., Manchester.—The gentleman named has been dead about twelve months.

Dr. S., Newington, will find the paper referred to in our number for the first of July, 1869.

Dr. ROBERTS will please receive our thanks.

COMMUNICATIONS, Enclosures, &c., have been received from Dr. Byrd, Illinois. Dr. Galvani, Bologna. Dr. Allen, Massachusetts. Dr. Milner Fothergill, London. Dr. Pavy, London. Dr. Benham, Wakefield. Dr. Albert Mooren, Berlin. Mr. Reed, London. Dr. A. D. Rockwell, New York. Dr. Sturges, New York. Mr. Collette, London. Dr. Hewett, Mr. Aston, Wadingham. Dr. Mrgan, Dublin. Dr. Brinton,

Philadelphia. Dr. Palfrey, London. Mr. Alfred Haviland, Northampton. Mr. Chas. Lunn, Edgbaston. Dr. Donovan, Cork. Dr. Drysdale, London. Dr. Gordon, Aldershot. Mr. Tiebhorne, Dublin. Dr. Croft, London. Dr. Johnson, London. Dr. Emerson Reynolds, Dublin. Mr. Le Neve Foster, Society of Arts. Mr. J. R. Kenneybell, Oxford. Dr. Langley, London. Dr. Handsel Griffiths, Dublin. Mr. Malcolm, London. Dr. Harvey, Aberdeen. Dr. Wickham Legg, London. Mr. Smeaton, Fulham. Mr. Higgins, Guy's Hospital. Sir Edmund Lechmere, London. Dr. Sieveking, London. Mr. Davenport, London. Surgeon Alcock, Aldershot. Dr. Quinan, Dublin. Dr. Braithwaite, Leeds. Mr. Nicholson, Manchester. Dr. Faussett, Moyville. Dr. Phelan, Cloumal. Dr. Young. Dr. Waring Curran, Mansfield. Mr. Hurlbatt, London. Dr. R. Eiler, Belfast. Mr. Crellin, London. Mr. Francis Vacher, Birkenhead. Mr. Jackson, London. Mr. Redman, Manchester. Dr. Webb, Dundrum, Cashel. Dr. Hamilton, Dublin. Dr. Clugston, Ballyclare. Dr. Bolland, Dublin. Dr. Basmish, Enniskeane. Dr. McDermott, Ballyteard. Dr. Johnson, Kilkenny. Dr. Barrett, Coachford. Dr. Cruise, Dublin. Dr. McManus, Longford. Dr. Clarke, Kilsrea. Dr. Meldon, Dublin. Dr. Russell, Cashel. Dr. Cryan, Dublin. Dr. Allen, Gorey. Dr. O'Kelly, Cork. Dr. Conolly, Moycullen. Dr. Porter, Dublin. Dr. Howes, Dunlavin. Dr. Phillips, Leighlin Bridge. Dr. Jones, Cork. Dr. Dwane, Cloyne. Dr. Lyon, Dalkey, &c., &c.

### VACANCIES.

King's College, London. The Chairs of Materia Medica and of Comparative Anatomy.

King's College Hospital. Physician, Honorary.

Owen's College, Manchester. Professorship of Anatomy. Emoluments from stipend and fees, guaranteed not to be less than £500 per annum. Full particulars on application to Dr. Greenwood.

Westminster Hospital. Resident Obstetric Assistant, without salary, but with board and lodging. Applicants must address the Secretary.

Lock Hospital (Mal.), London. House Surgeon. Salary, £50 per annum, with board and apartments.

Stockport Infirmary. House Surgeon. Salary, £60 per annum, with board and apartments. Address the Hon. Sec.

Queen's Hospital, Birmingham. House Physician. Salary, £50, with board and residence. Applications, &c., to the Secretary.

Royal Albert Edward Infirmary, Wigan. House Surgeon. Salary, £150, with apartments, but not board. Applications to the Hon. Sec.

West Norfolk and Lynn Hospital. House Surgeon and Secretary. Salary, £80 per annum, with board, lodging, and washing. Testimonials, &c., to be sent to the Weekly Board. King's Lynn.

Sussex County Hospital. Dispenser. Salary, £100 per annum, with partial board. Preliminary information of the Secretary.

### APPOINTMENTS.

Crowe, Dr. G. W., House Surgeon to the Warneford Hospital.

DENBY, T. C., M.R.C.S.E., Junior House Surgeon to the Infirmary and Dispensary, Bradford, Yorkshire.

DICKSON, H. C.M., Resident Clinical Assistant to St. Luke's Hospital, Old Street, London.

DUFF, J., L.F.P. & S. Glas., Resident Assistant Medical Officer at the Oxfordshire and Berkshire Lunatic Asylum, Littlemore.

GREENWOOD, Mr. T. P., Assistant House Surgeon to the Derbyshire General Infirmary, Derby.

HOMAN, G. W., M.R.C.S., Resident Medical Officer to the St. Pancras and Northern Dispensary, London.

LE MOTTE, G. H., M.R.C.S.E., Junior House Surgeon to the Royal Free Hospital.

M'COMBS, J., M.A., M.B., C.M., Assistant Medical Officer to the Homerton Fever Hospital.

MACNAUGHTON, J., M.B., C.M., Medical Officer for the Parish of Kilchrean and Dalavich, N.B.

MASON, W. J., L.R.C.P. Ed., M.R.C.S.E., Medical Officer to the Workhouse and Medical Officer and Public Vaccinator for No. 3 District of the Sudbury Union, Suffolk.

OGSTON, A., M.D., a Surgeon to the Royal Infirmary, Aberdeen.

PORTER, D., M.D., L.F.P. & S. Glas., Medical Officer for the Haughton-le-Skerne District of the Darlington Union.

SMITH, W. J., L.R.C.P. Ed., L.R.C.S. Ed., Medical Officer to the Rawmarsh District of the Rotherham Union.

THOMSON, Mr. J. H., House Surgeon to Gray's Hospital, Elgin.

WILL, J. C.O., M.D., C.M., a Surgeon to the Royal Infirmary, Aberdeen.

ARMY MEDICAL DEPARTMENT.—Surgeon G. C. Gribbon, M.B., to be Surgeon-Major, vice D. Wood retired on temporary half-pay. Surgeon J. J. Crean, from half-pay, to be Surgeon, vice R. Adams, M.D., deceased. Surgeon T. Wood, M.D., from half-pay, to be Surgeon, vice F. T. McCarthy, deceased.

## Marriages.

ANDREW—MACDOWEL.—On the 9th ult., at St. Stephen's, Dublin, Harry P. Andrew, late Captain 8th Hussars, to Selina Henrietta (Lina), second daughter of Professor MacDowel, M.D. T.C.D.

SMITH—JACKSON.—On the 24th ult., at Orpington, Kent, Thomas Heckstall Smith, F.R.C.S., of St. Mary Cray, to Emily, elder daughter of Addis Jackson, Esq., of Orpington.

## Deaths.

APPLIN.—On the 20th June, at Manchester, A. O. Applin, M.R.C.S.E., Staff Surgeon-Major Army.

BARRETT.—On the 16th June, at Wallingford, J. S. Barrett, M.R.C.S.E., of Kingston-Bagpuize, aged 76.

BOWKETT.—On the 16th June, Thos. Edward Bowkett, L.S.A.L., of Poplar, aged 70.

COTTERELL.—On the 19th June, Peter Ambrose Cotterell, M.D., of West Bromwich, aged 47.

HARDY.—On the 21st June, H. G. Hardy, L.R.C.P. Ed., M.R.C.S.E., of Willington, aged 48.

NISBETT.—On the 22nd June, at Lee, S.E., Sir Alexander Nisbett, M.D., B.N.

PERRY.—On the 21st June, at Helensburgh, Jane, relict of Robert Perry, M.D., aged 88.

# The Medical Press & Circular.

"SALUS POPULI SUPREMA LEX."

WEDNESDAY, JULY 8, 1874.

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## Original Communications.

### OSTEOID CANCER OF LEFT FEMUR.

By W. JOHNSON SMITH, F.R.C.S.,  
Surgeon to the Seamen's Hospital, Greenwich.

JOHANN ANDERSSSEN, æt. 24, admitted into the Seamen's Hospital on July 21, 1873, a tall, muscular Norwegian, slightly anæmic, his countenance indicative of constant severe pain.

Four months before admission the patient noticed a slight swelling of the left knee, which speedily became painful, and produced lameness. No history of injury or of previous disease in this part.

At the time of admission there was a regular swelling of the lower extremity of the left femur, which swelling, as it was traced upwards, could be felt gradually subsiding into the lower third of the shaft. The surface of this tumour was then quite smooth. The tumour seemed to be of firm consistence; it was tender on pressure. The circumference of the lowest portion of the thigh just above the upper margin of the patella was 16½ inches, the circumference of the right lower limb at a corresponding part being 13½ inches. There was slight fluid effusion into left knee-joint. The integument over the tumour seemed to be perfectly healthy, and could be moved freely over the hard parts below. In the left groin could be felt a round hard tumour of the size of a small apple. The patient was put on full diet, and ordered to keep to his bed.

During the month of August the tumour in the femur increased slowly in size, and became more and more painful. It remained very firm, and felt like an enchondroma. Its surface during this month became slightly lobulated. The inguinal swelling increased slowly in size, the patient rapidly lost flesh, and suffered much from pain in the thigh.

During the month of September the disease made rapid progress. The tumour in the femur increased in size, became distinctly lobulated, and became associated with

large hard irregular outgrowths (glandular), which almost completely filled up the popliteal space. The leg and foot became very dropsical, and the skin over the tumour pale, oedematous, and marked by tortuous veins. The tumour increased in length as well as in circumference, and involved almost the whole of the lower third of the femur. The patient had now become much emaciated, and had several attacks of hæmoptysis, the bleeding, however, never being very profuse.

During the months of October and November there was progressive decline, the main symptoms being emaciation, extreme debility, anæmia, occasional hæmoptysis, cough, with frothy mucous expectoration, retention of urine, necessitating frequent catheterism, acute pain in the thigh and groin, extreme distension of the skin of left leg and foot from dropsy. Large bed-sores formed over trochanter. At no period did there seem to be any tendency in the skin over the tumour to become ulcerated, or even congested.

Death on December 11th, 1873. Post-mortem examination, December 13th, 1873.

The left femur presented at its lower third a large tumour, completely encircling the bone, and extending inferiorly to the margin of the articular cartilage over the condyles, which cartilage remained quite free and healthy. This tumour was largest below, and diminished gradually in circumference as it passed upwards. The growth was of a uniform dead white colour, and firm and elastic, resembling on superficial examination a firm fibroma. The tumour was slightly lobulated in front, and posteriorly was connected with several large irregular outgrowths, the structure of which was harder than that of the main tumour (diseased popliteal glands). The tumour of the lower part of the femur measured six inches from above downwards, and the circumference of the diseased mass (including femoral tumour and associated diseased glands) was sixteen inches. Immediately above this large tumour there was on the anterior surface of the shaft of the femur a second growth of the size of a chestnut. This was very soft, and almost diffuent, and it resembled in regard to colour and consistence a small mass of soft carcinoma (medullary cancer). Along an extent of one inch above

this second and smaller growth, the shaft of the femur seemed to be quite healthy; but beyond this portion the whole of the bone, as far as the base of the trochanters, was involved in a third tumour, much lobulated both on the surface and at its margins, and having a structure similar to that of the main growth below. The surface of each growth was covered by slightly thickened periosteum, which dipped down between the lobes. The neck and head of the femur were free from morbid deposit, but the osseous tissue here was very soft. At the floor of the pelvis on the left side was a large and much lobulated mass of stony hardness. This mass, formed by a fusion of diseased glands, was of the size of a cricket-ball, and was traversed almost through its centre by the iliac vessels. The surfaces of both lungs studded with numerous flattened and disc-shaped deposits of a pale white colour and irregularly calcareous consistence. Larger and more irregularly-shaped deposits were found within the lungs in each lobe. The bronchial and tracheal glands much enlarged and hardened, forming a very hard tumour, which was traversed by the left bronchus. In front of the second and third lumbar vertebrae was an elongated and hard tumour (glandular). All other viscera healthy.

#### REPORT ON THE MORBID GROWTHS FROM THE ABOVE CASE.

By JOSEPH NEEDHAM, F.R.M.S., London Hospital.

The specimens presented for examination were—

1st. Portions of the tumour surrounding the lower third of the left femur.

2nd. Portions of diseased popliteal lymphatic glands.

3rd. Part of mass representing the lumbar lymphatic glands.

4th. Several pieces of lung tissue, in which were embedded several morbid deposits varying in size from a millet-seed to a walnut.

1st. The consistence of this mass varies considerably; the greater part immediately surrounding the bone is very hard, whilst the external portions are soft, the density increasing from without inwards. The matrix of the dense portions consists of large irregular fibres varying in size from  $\frac{1}{16}$  to  $\frac{1}{8}$  of an inch in diameter, arranged in parallel bundles, radiating from the surface of the femur to the periphery of the tumour, but also presenting in some parts a dense irregular network, due to those radiating fibres crossing each other and uniting at various angles; each of these fibres gives off at irregular intervals branches, which radiate in various directions and join other fibres and their branches. The elements of the matrix in the central portions are so closely impacted that few interspaces can be discerned; but proceeding from this position to the circumference the fibres become more and more separated, so that they form large irregular alveoli varying in size, in which the cell elements are enclosed. In the softer parts of the tumour, more especially at the periphery, the bundles of large fibres are separated by wide intervals; the large spaces thus formed are filled by masses of the softer elements. Externally the tumour is covered by a dense layer of connective tissue, from which processes representing trabeculae can be traced even into the dense central calcareous parts; but these processes are distinct from the fibres proper of the matrix, and in no place are they observed united. Tracing the fibres from without inwards their structure is seen to be—first, apparently homogeneous, then faintly fibrous, and finally, calcareous; but, although this is the predominant arrangement of their structural peculiarities, yet all the blood-vessels are surrounded by a zone of calcified fibres. No true lacunae nor canaliculi are to be seen, objectives up to  $\frac{1}{16}$  in. revealing nothing in the so-called "osseous tissues," but minute calcareous granules and a few small badly-formed cavities. The soft elements consist of spheroidal or elongated oval cells, from  $\frac{1}{16}$  to  $\frac{1}{8}$  of an inch in diameter, each containing one or two well-defined nuclei. These cells are best seen in the large

alveoli situated in the peripheral portions of the tumour; advancing to the centre, the cells become gradually smaller and more elongated, and are firmly attached to the fibres. Tracing them still further, their nuclei only are to be seen, whilst in the central calcified portions nothing approaching the character of either cell or nucleus is visible: but the cells are scattered throughout the calcareous zones surrounding the blood-vessels; closely attached to the wall, and projecting into the lumen of some of the blood-vessels, are small collections of such cells. The large peripheral spaces already described are filled with large masses of cells in different stages of disintegration; some spaces contain nothing but granular debris, in which minute oil globules occupy a prominent position, while in other spaces the cells are very granular, but little altered in shape. The tumour is not very vascular, the blood vessels being few in number and rather large in size; their walls are very thin, and are composed of fine fibrous tissue surrounded by round and fusiform cells corresponding to those found in other parts of the growth.

2nd. Not even a trace of glandular arrangement remains to indicate the original nature of the mass; it is extremely dense, much more so than the primary growth, and consists of numerous calcareous spicules radiating from the centre to the circumference, forming long, narrow meshes, wherein are to be seen, closely packed, numberless round cells, agreeing in character with—but rather larger than—those of the primary deposit. In no situation do they show signs of fatty degeneration. The glands are fused together and surrounded by a capsule composed of loose connective tissue which is firmly adherent to the mass. The blood-vessels are more numerous than in the first specimen, and their walls are calcified.

3rd. In structure these glands are identical with No. 2.

4th. The structure of these masses, small and large, corresponds to that above described. The calcareous matter is deposited principally in the fibres surrounding the vessels, which are here (as in Nos. 2 and 3) more numerous than in the growth from the femur. The stroma is more loosely arranged, and in some parts it is soft, and dimly granular, resembling the matrix of hyaline cartilage; multitudes of cells are seen filling up the alveoli of the growth and distending the adjoining air-cells of the lungs; the growth thus seen invading the pulmonary alveoli consists of round nucleated cells without stroma. All that can be discerned in these morbid masses, of the normal structure of the part, is a beautifully preserved plate of hyaline cartilage, here and there the only landmark of an obliterated bronchus. The lung tissue and the morbid deposits therein are much pigmented.

The appearance of these growths agree (with the single exception of the absence of true lacunae) with those usually described under the name of peripheral osteo-sarcoma, or osteoid cancer of Müller, and as such I should regard them.

#### REPORT ON SYPHILIS.

By C. R. DRYSDALE, M.D., M.R.C.P.L., F.R.C.S.E.,  
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In a previous number of the MEDICAL PRESS AND CIRCULAR I made reference to a lecture on tertiary syphilis lately delivered by Dr. Alfred Fournier, the distinguished pupil of Dr. F. Ricord, at the Lourcine, female venereal hospital of Paris.

In another lecture, reported by M. Pichard in *Le Progrès Médical*, June 6, Dr. Fournier speaks as follows of the gummy tumours of the cellular tissue:—

*Third Period—Ulcerative Stage.*—This stage is truly the most important of all those which concern gummy tumours; at any rate, it is, I think, the least well known. The tumour opens, and this swelling presented itself a little while ago in the form of a more or less extended focus, clearly fluctuating, appear as if it must at once on being opened give forth an abundant quantity of liquid, and collapse



in a proportionate manner. Now, does this take place? Not at all, as we shall see.

And, first of all, but very little liquid flows from the tumour when it is opened. Often some few drops appear, and exude, rather than flow away; sometimes a teaspoonful of liquid at most is evacuated. In the second place, does the tumour sink in like an abscess which is opened spontaneously, or by the aid of the bistoury? No again. It either collapses but little, or not at all. The tumour remains after being opened almost as it was before. And that for a good reason, for but little has come away.

What is the liquid which comes away by the perforation? Sometimes, but rather rarely, much more rarely than is generally thought, it is a viscous gelatinous liquid, of syrupy consistence, transparent or semi-transparent, of which the most specific character is to be stringy, like gum. Much more commonly it is a sero-sanguinolent liquid, yellowish, pyoid rather than purulent, containing in suspension organic detritus and particles formed by the *débris* of the cellular tissue, fatty granulations, oily or blood globules, and leucocytes. Sometimes again (but more rarely) it is a liquid, markedly purulent, greenish-yellow, or again, pus ill-conditioned and reddish.

The gummy tumour, once opened, tends to open more. The little perforation becomes larger and larger by ulceration of the skin, which is destroyed excentrically, so than in some days this little perforation in the centre transforms itself into a loss of substance circular in character, of the diameter of a lentil, or a piece of twenty centimes, of fifty centimes, or even of larger diameter.

This circular orifice occupies the most prominent and most central part, so that at this moment the tumour represents a little hill, at the summit of which a little crater has opened. Now, if at this time we examine the interior of the crater, we see at its orifice a sort of parenchyma, solid, whitish, of variable whiteness (greyish or yellowish white), fleshy, and whose aspect may be compared with the flesh of the cod-fish. If we examine this parenchyma carefully, we notice that it presents the appearance of dead tissue; it is insensible, and disunited; it falls into fibrous pieces, as in this specimen, where you see some fibrillæ, of the size of a thread of vermicelli, separated spontaneously from the total mass. This parenchyma is the tissue of the tumour itself; but it is degenerated tissue mortified, passed or passing into the condition of a slough. The greater part of the tumour is made up of this solid mass. It is for this reason that it has given forth so little liquid when it opened, and has little diminished in bulk. Thus, this tissue holds with regard to the living tissues the part of a slough; it is a dead tissue which nature must get rid of. And such is indeed the final cause of all the phenomena which ensue.

Now, gentlemen, how goes on the progressive work of elimination of this gummy slough? Very simply. From day to day larger or smaller flakes are detached from the total mass, and become dissociated, broken up, and dissolved by ulceration. We find them in the pus when we examine it with care, or on the dressings; so that the total mass diminishes day by day, the tumour falls away, and at a certain epoch the fleshy mass will be completely evacuated.

When the slough comes away what remains of the tumour? Nothing but a loss of substance dug out of the healthy tissues. Now, this loss of substance, more or less profound, circumscribed by the prominent edges which surround the circumference of the tumour, constitutes a true cavity hollowed out in the healthy tissues, and has received the name of *gummy cavity*. This cavity, by the progressive ulceration of its edges, is not long in converting itself into an ulceration open to the air.

After this the gummy tumour is brought to the condition of an ulcer of dimensions varying according to the initial volume of the tumour.

What are the characters of this ulcer? It is an ulcer excavated, very hollow, even sometimes with edges sharply cut, as with a die, sometimes prominent, and raised above the surface, because still infiltrated with gummy products.

This ulcer is surrounded by an areola of a dull red hue. It furnishes a rather abundant suppuration, which is often sanious, or sero-sanguinolent, and full of organic detritus.

Up to this time nothing special in this collection of characters, nothing more than what is seen in a number of ulcers, and notably in tertiary syphilitic ulcers. But let us examine the base of the wound. The base alone of the ulcer, without presenting anything pathognomonic, nevertheless has certain characters specific enough to be easily recognised. It is above all the base of an ulcer of bad aspect and suspicious countenance. On the one hand it is irregular, areolar, and anfractuous, presenting here and there depressions. On the other hand, this ulcerated base is covered with adherent detritus, with fleshy shreds which are dead and putrilaginous; one would think it was a wound which is in gangrene here and there. This aspect is due (you have already understood) to shreds of the gummy tissue not yet detached.

By reason of these different characters, and especially on account of this evil aspect, the gummy ulcer has sometimes been able to be taken, at any rate, at first sight, for a cancerous ulcer. Several observations show that the error has been committed. This appearance, however, remains but a very short time. However little art assist, the gummy ulcer is soon cleansed and enters into the stage of reparation.

*Fourth Period—Reparation.*—Some words will suffice to characterise this ultimate stage. When the last gummy *débris* are eliminated the ulcer becomes clean and has a better look; its edges sink; the red areola diminishes; the base rises and becomes covered with fleshy granulations; the pus becomes better, greener, and like that of simple wounds. Then a work of cicatrisation ensues, identical with that which takes place in any wound, and in a variable time the definitive cicatrisation takes place. The scar which results is first of all red; it next becomes paler, and white. It is always depressed by reason of the loss of substance of an irreparable character which the integuments have undergone.

Such is the evolution of the syphilitic gummy tumour in the simplest cases, such the evolution we may call normal.

This evolution we may sum up in a few words, to retrace the whole of the different phases of which we have been speaking.

*First Period.*—The gummy tumour is seen in the form of a tumour, solid, hard, cold, indolent, and not inflamed.

*Second Period.*—This tumour softens, and becomes fluctuating. Then a sub-inflammatory process takes possession of it; the tumour becomes reddish, and simulates in some of its shades a phlegmonous abscess ready to open.

*Third Period.*—The tumour opens, ulcerates, eliminates its slough, then, by the destruction of its cutaneous covering, converts itself into an open ulcer, of bad aspect, still covered with shreds of gummy material.

*Fourth Period.*—This ulcer cleanses itself, is converted into a wound of better appearance, then is repaired and cicatrises. In this is resumed all the pathological history of the gummy tumour.

And in how long time are there produced these successive phases of the gummy tumours. What in a word is the duration of the gummy tumour?

1. On the one hand this duration is always long; it never is less than some months, three to four months at least—six to eight months on the average—sometimes longer.

2. On the other hand, this duration is very variable. The varieties above all are in the two first periods, and especially in the first, for the two last (at least in general and making reserve for certain cases to be spoken of soon) evolve themselves in a pretty regular way, pretty equally and relatively rapidly.

The first period, or period of formation, is above all unequal with regard to its duration—sometimes rather short, at others slow, extremely slow. There are cases where the gummy tumour, when formed, remains stationary

for a very long time, without apparent modifications—and similarly for the second. There are some gummy tumours which quickly soften; hardly are they formed before they fluctuate. There are some which soften very slowly and partially, this taking place in various isolated parts of the tumour.

On the other hand, once the peripheric inflammation has declared itself, things go on pretty quickly and pretty equally in different patients. A few weeks suffice to empty the gummy tumour and to bring it into the state of an ulcer. In the ulcerated condition, it may remain a shorter or longer time, but however little a treatment merely topical be employed, the cleansing and reparation of the ulcer is produced pretty promptly.

*Varieties.*—What I have until now described is the gummy tumour in its simplest form and its most elementary type, without any accident or complication. Now, to be faithful to what we see at the bed-side, we must add that the gummy tumour does not always present itself in this typical form. It is subject, on the contrary, to certain varieties of symptoms and of evolution which I ought to point out. I will only indicate to you in this chapter of varieties what is the most essential, certain that your medical education will fill up the unavoidable omissions in this short *résumé*.

Among the variety of symptoms, two points alone are worthy of arresting our attention—

1. I have represented to you the gummy tumour as a tumour essentially indolent, not causing of itself any pain, and insensible to pressure. This is the case, in fact, in the majority of such tumours, at least in 95 in 100 of them. But you ought to know also that in certain cases this tumour, far from being indolent, determines on the contrary rather severe pain, even violent and acute pain.

And when does this take place? In a solitary instance: when the tumour is in relation with a trunk of a nerve or a nervous filament which it compresses or surrounds. You will find numerous instances of this in science. Thus, M. Ricord had a case where a gummy tumour in the groin exerted severe pain of crural neuralgia, and irradiated all over the thigh from the groin to the knee; whilst in another case, seen by the same author, two gummy tumours seated in the course of the ulnar nerve provoked severe pains radiating over the forearm and the two little fingers, thus following clearly the distribution of the nerve. In a case of Nélaton's, a gummy tumour in the axilla caused rebellious neuralgic pains of all the limb in the shoulder. In another case, well studied by Zambaco, a tumour seated on the forearm, in the region where the pulse is felt, caused pain of the anterior aspect of the three first fingers and pains radiating upwards to the shoulder.

2. I have told you that in the majority of cases the gummy tumour did not of itself cause any functional annoyance. This is the case in all instances where this tumour is neither injurious by its size nor its situation.

But it is quite different in opposite conditions. It is useless to say, for instance, that a large tumour becomes by its volume alone the origin of functional disturbances, or again, that a tumour seated on a movable part, such as the jaw or the hand, may prevent motion. A voluminous tumour seated in the submaxillary region prevented the patient from eating, and even impeded respiration and deglutition from the compression which it exercised on the pharynx.

*A fortiori*, when a tumour is in the vicinity of a nerve, it may cause, besides neuralgic pains, functional disturbances of more or less important character? In Zambaco's case the patient, who was employed in ironing, experienced, from the gummy tumour seated in the region of the pulse, congestion of the hand, and such a diminution of muscular power that she could no longer hold her iron. In Nélaton's case the gummy tumour in the axilla caused very severe pain, a swelling of the whole limb, fornication, and a notable diminution of muscular power.

But all of these have but a secondary interest; all

these varieties of symptoms might have been foreseen. On the contrary, the following is of more importance to be known:—

*Variety in Number.*—In the most frequent cases we observe either a single gummy tumour, or again, two, three, or four such at most on the same patient. It is far rarer to see a greater number of these tumours.

But in certain cases, and notably in patients rudely assailed by malignant syphilis, we meet with multiple gummy tumours, and when these tumours commence to multiply they multiply with strange facility. This is a true gummy diathesis. We then see eight, ten, twelve, or fifteen at the maximum, of unequal volume, disseminated, and of different degrees of development, or reunited in groups. One of our patients had a group of six tumours on the back. As another example of these tumours, remember the case of that patient I showed you in our first meeting: she had four tumours on the head, three on the legs, two on the forearm, and one on the spine of the scapula.

This is not all; but from this moment we leave usual cases, and enter the field of exceptions. In some patients, even more numerous gummy tumours have been seen—twenty, thirty, thirty-five, fifty. M. Cazenave has mentioned a patient whose arms and shoulders were covered with gummy tumours: "There were certainly more than fifty." The two arms presented the strangest appearance; they were quite knotty, and presented a coppery colour, very marked; some of these tumours were hollowed out by characteristic ulcers.

M. Corvisart has mentioned a patient who presented with several other lesions incontestably syphilitic more than 100 tumours on the breast, belly, and arms. Indeed, there is more yet, and here we enter quite into the extraordinary:—

You will find in the *Bulletin de Thérapeutique* of 1845 a case related by Lisfranc, in which a patient had on the arm, forearm, and thighs, 160 gummy tumours, and these tumours were large, would you believe it? The smallest were the size of a little hazel-nut, and the largest that of a small pear. Iodide of potassium was given. In eight months of treatment there remained only forty tumours; the 120 had been cured by resolution. If we suppose this case to be authentic (I mean not amenable to objections with regard to the nature of the tumours) we must none the less take it for a fact completely exceptional, a true pathological curiosity.

But much otherwise important are the varieties of volume about which it remains for me to speak.

*Varieties in Volume.*—I have brought before you the gummy tumour as usually being of small volume, about a walnut in size; I have also added that the volume may be considerable (that of a hen's egg or turkey's egg). Now, in some rare cases, this volume may be surpassed, and greatly. To cite only two extreme cases, I have observed a gummy tumour of the thigh measuring eight to ten centimetres in diameter horizontally, and fourteen vertically, with a thickness varying from two to six centimetres, i.e., a tumour as large as the half of a fetal head. Dr. Mendeville has seen at the Val-de-Grâce a gummy tumour still larger; this was on the head. It descended from the orbit to the neck, which was attacked for a length of five to six centimetres; setting out from the nose it went as far as the occiput, that is, the lower half of the face, a great part of the neck, and all the lower part of the cranium were converted into an enormous gummy tumour.

Facts like this, though rare, are of importance to be known; and I point them out more willingly since they are but little known in general, and have not as yet, as we may say, right of sojourn in science, if we may judge at least by the silence of our classic writers on the subject. As to the interest they excite, you will understand it without my pointing it out. On account of their rarity and their excessive volume these tumours are apt to be taken for tumours of another nature—for malignant tumours, and especially cancers, and hence they are apt to be subjected to grave surgical treatment. The proof is, that in the two



cases I have just cited, the diagnosis of cancer had been at first made by different practitioners; in the one an operation had been proposed; in the other, very fortunately for the patient, this supposed cancer had been declared not to be fit for operation. It got well under iodide of potassium.

(To be continued.)

## MEDICAL PROBLEMS OF THE DAY. (a)

BY NATHAN ALLEN, M.D.

(Continued from page 3.)

**Physical Development.**—A gradual change is taking place in the organisation of our New England people, with which the members of the medical profession cannot but be conversant. This is very manifest from the change in the type and character of disease. Formerly there was relatively more acute disease and less chronic—more violence in the attacks, with a higher grade of inflammation. It required in its treatment frequent venesection and more powerful medicine. At the present day we have a larger class of diseases arising from general debility, from indigestion, anæmia, scrofula, neuralgia, &c. This change indicates the existence of less muscle—more nerve—less physical vitality—more nervous energy—less power of endurance, but more mental activity. The same change is also indicated in the anatomy and physiology of the person. The framework of the body generally is not so large—is not so compact, nor so well proportioned; the countenance is paler, the features are more pointed and not so expressive of health, though more so of intelligence. The texture or quality of organisation is more delicate and refined; the brain is becoming developed more and more relatively, and too frequently at the expense of the body; or, in other words, the nervous temperament, with all its advantages and disadvantages, is becoming too predominant for other parts of the body. As one of the consequences we have more diseases of the brain and nervous system, more sudden deaths from apoplexy, paralysis, and also from diseases of the heart. The average duration of life may as a whole be longer, but this arises from less exposure, better care, and improved medical treatment.

This change in organisation has occurred principally within the last two or three generations. Some of its causes are very obvious, while others are more obscure and complicated. Among the principal causes may be mentioned less exercise of the muscles out-doors, on the farm and in mechanical pursuits, but more exercise of the brain in the school-room, in the shop, in the store, in the factory. The change in the construction and manner of heating our dwelling-houses, causing a much higher temperature—the increasing strife and competition in business, the general style of living and modes of dress, &c., have also had much to do in producing this change. These and other causes have exerted a pernicious influence upon the female constitution, and so upon the laws of inheritance. It is through this medium or channel especially, and by means of these laws, that, in the course of two or three generations, great physical changes are effected. The laws of heredity constitute the most important agency whereby the vital forces, the vigour and soundness of the physical system are changed for better or worse. Thus in the course of time is determined the peculiar type and character of a people.

There is nothing of such transcendent importance to a race or nation as *physical stamina*—strong, vigorous, healthy constitutions. How did the Germans, in the late war, gain such signal victories over the French? Why does that people now stand at the head of all the European nations in power and statesmanship? Why do the Germans

take the lead at the present time in the cultivation of the sciences, and in almost every department of literature? Is it not owing to their grand *physique* more than to any thing else?

**Mental Culture.**—In the advancing knowledge of physiology it has been discovered that all mental culture should be based upon the brain—that education should be pursued in harmony with the laws of life and health, and that where these are violated, the advantages of the former afford poor compensation. Formerly no school boards and teachers, in the matter of education, gave much attention to the condition of the body or the development of the brain; and even at the present day very little is paid them, compared with what should be given to those great physical laws which underlie all mental culture. The lives of a multitude of children and youth are sacrificed every year in this Commonwealth by violating the laws of physiology and hygiene, through mistaken or wrong methods of mental training; besides, the constitution and health of a multitude of others are thus impaired or broken down for life. Nowhere else in society is a radical reform needed more than in our educational systems. Inasmuch as the laws of the body lie at the foundation of all proper culture, they should receive the first consideration. But in educating the boy or girl, from the age of five to fifteen, how little attention is given to the growth and physical changes which necessarily occur at this most important period of life! The age of the child should be considered, the place of schooling, the hours of confinement and recreation, the number and kinds of studies, together with the modes of teaching, should all harmonise with physical laws—especially those of the brain.

The system or mode of treating, in education, all children as though their organisation were precisely alike, is based upon a false and unnatural theory. Great injury, in a variety of ways, results from this wrong treatment; in fact, injuries are thus inflicted upon the sensitive organisations and susceptible minds of young children from which they never recover. That many of our most independent and clear-headed educators themselves express so much dissatisfaction with the working and results of our schools, affords evidence that something is wrong in the present system. As we contemplate the great improvements made in education for the last thirty or forty years, and are surprised that educators were content to tolerate the state of things then existing, so will the next generation, when still greater and more radical changes shall have been introduced, look back with astonishment at this generation, and wonder that it was so well satisfied with its own methods. When our educators become thoroughly convinced that physical development as part of education is an absolute necessity—that a strict observance of the laws of physiology and hygiene is indispensable to the highest mental culture, then we shall have vital and radical changes in our educational system; then the brain will not be cultivated so much at the expense of the human body, neither will the nervous temperament be so unduly developed in proportion to other parts of the system, now so often bringing on a train of neuralgic diseases which cannot be easily cured, and exposing the individual to the keenest and most intense suffering which all the advantages of mental culture fail, not unfrequently, to compensate.

The more this whole subject is investigated, the more reason we shall find for making allowances or some distinction in scholastic discipline with reference to the differences in organisation of children, and for adapting the hours of confinement and recreation, the ventilation and temperature of schoolrooms, the number and kinds of studies, the modes of teaching, &c., to the laws of the physical system. But another and still more important change must take place. Some time—may that time be not far distant!—there will be a correct and established system of *mental science*, based upon physiological laws; and until this era arrives, the modes and methods of education must remain incomplete and unsatisfactory. The principles of this science, in the very nature of things, must rest upon a correct knowledge of the laws and func-

(a) Part of the annual address before the Massachusetts Medical Society, assembled in Boston June 5rd.

tions of the brain ; and until these are correctly understood and reduced to a general system, all education must be more or less *partial, imperfect, and empirical*. While the old theories of metaphysicians are very generally discarded, they still have practically a powerful influence in directing and shaping our educational systems and institutions. In the selection and arrangement of studies very little attention is paid to the peculiar nature or operations of the various faculties of the mind, or the distinct laws that govern their development and uses. For illustration—instead of educating, drawing out, and training, all the mental faculties in their natural order and in harmony, each in proportion to its nature or importance, the memory is almost the only faculty appealed to in every stage of education ; and this is so crammed and so stuffed that frequently but little of the knowledge obtained can be used advantageously. Instead of developing the observing faculties by “object teaching,” appealing to the senses of sight and hearing, those two great avenues of knowledge, or giving much instruction *orally*, we require the scholar to spend most of his time in studying and poring over books, mere books. The mind is treated as a kind of general receptacle into which knowledge almost indiscriminately must be poured, yes, forced, without making that knowledge one's own, or creating that self-reliance which is indispensable to its proper use. In this way the brain does not work so naturally or healthily as it ought, and a vast amount of time, labour, and strength is wasted—nay, worse than wasted. From this forced and unnatural process there often results not only a want of harmony and complete development of all parts of the brain, but an excessive development of the nervous temperament, and not unfrequently an irritability and morbidness which are hard to bear and difficult to overcome ; and not unfrequently it ends in a permanent disease of the brain, or confinement in a lunatic asylum.

When we take a careful survey of the various discussions and diverse theories on this subject, considered metaphysically, and then compare them with the great improvements and discoveries in the physical sciences for the last fifty years bearing upon the same subject, the change or progress looks mainly in one direction—viz., that all true mental science must ultimately be based upon physiology. Here is a great work to be performed, and when accomplished it will constitute one of the greatest, most valuable, and most important achievements that was ever wrought in the history of science. A vast amount of positive knowledge has already been accumulated on this subject by various writers, but a great work, by way of analysis, observation and induction, and of further discoveries as to the functions of the brain, remains to be completed. The work must be performed in a great measure by persons profoundly versed in the physical sciences ; and no small proportion of it must come from the observations, labours, and contributions of medical men.

*The Temperance Question.*—Probably there is no one subject agitating the public mind at the present day so important as that of temperance. Aside from its economical, political, and moral bearings, it sustains a most vital relation to medicine. In some respects it is really a physiological question, the solution of which belongs to the experts in this science ; but unfortunately there is not here a general agreement of opinion. Before this reform can be carried on very successfully, the exact relations of alcohol to health and disease must be better understood and positively settled. What is the physiological action of alcohol on the human system in health and disease ? Does it increase or impart force in the process of digestion ? Is alcohol in any of its forms absolutely necessary as a therapeutical agent ? Is there such a love of stimulants implanted by Nature among our instincts, that man cannot well resist temptation ? Does health require as a common beverage, at meals, or other times, the use of a mild stimulant ? These and kindred questions must be settled, not by mere authority, nor by individual opinions, but by such an accumulated amount of evidence derived from the study of physiology and pathology, that it cannot

be disputed or resisted. How important that the members of the profession, who are the proper expounders of these sciences, should become safe teachers and guides in settling these grave questions ! But whatever differences of opinion may here exist, there are points of view in regard to this reform upon which there should and must be entire agreement—viz., its sanitary aspects. That intemperance is productive of a vast amount of disease, all will admit ; that it is one of the most powerful causes of physical degeneracy now in operation, no one will probably question. If to alcohol we add tobacco, opium, and other stimulants and narcotics, no pen can describe the terrible injuries which they inflict upon the human race.

From a hygienic point of view, of what avail are the benefits of good air, pure water, wholesome food, healthy occupations and dwellings, when the laws of the physical system are being constantly violated by the poison of alcohol and tobacco ? It is not alone the present or temporary effects of these agents, but the *permanent*, such as are incorporated into the organisation itself and become a part and parcel of it—these are the seeds of evil tendencies and diseases, which are transmitted to successive generations. It is only when we take into account the power and extent of hereditary influences that we can fully appreciate the importance, the magnitude, and the grandeur of the temperance reform.

*Position of Woman.*—That the marriage and parental relations constitute the groundwork, the main pillars of human society, requires here no argument to prove. The physiological law of *sex* is the corner stone of these relations, and has, we believe, a far more direct and powerful influence upon organisation and character than is generally considered. Inasmuch as woman is so created that her own health is very much affected by this feature in her organisation—inasmuch as the physical development of offspring is also very much dependent upon her constitution, these two considerations have an important bearing upon her education, employment, and relations to the public. There is a normal and healthy standard for every organ in the human body ; and whatever influences tend to change or violate the laws that govern any one of these should be carefully guarded against. Thus, in the matter of education it has been very clearly demonstrated by a distinguished member of our profession, that the boy and girl cannot be educated alike. No one but an experienced physician can realise or describe fully the powerful influences which the function of menstruation has upon the health of women ; but this effect, in extent and character, depends much upon the early stages of its development. For the period of some thirty years there is certainly a marked difference in the sexes, which must materially interfere with employments and public duties. Such is the relation, too, of this function to the nervous system, that any derangement or morbidness of action here may affect the disposition and character of the individual.

All writers on physiology agree that too much importance can scarcely be attached to the healthy action of the uterine functions ; and when we present the testimony of one writer, it expresses, we believe, the opinion of all. Says Colombat : “The extreme sensibility of the uterus, its physiological importance, its peculiar irritability, and especially its more or less sympathetic connection with other parts of the body, render it a centre of action which in the sex seems in a measure to *domineer over the whole economy*, and form the *principal basis upon which the edifice of the whole organisation rests*.”

In settling, then, the points involved in the questions of “Women's Rights,” so called, the physiological bearings and tendencies should receive primary consideration. The immediate change produced, however, may not be so noticeable, but in the course of two or three generations its effects become very striking and powerful.

That in the present state of society there is need of some changes or reform looking to improvement in the health of woman, is evident. The very general ill-health of American women is often asserted. There should certainly be a re-

form in the fashion or style of dress ; it should harmonise with the laws of the physical system. In the early training of girls the greatest care should be taken to secure the best possible development of the body ; and in the whole course of their education, whatever interferes with healthy action or violates physiological laws, should be scrupulously avoided. As to the higher departments of education and a more extended range of employments, there are substantial reasons and arguments deduced from physiology itself why woman should have these advantages. Let her have the highest culture—physical and mental—consistent with her whole nature. But then, that she should share equally with man in all the strife and competition of business, in the excitement and rivalry connected with political and public life, including suffrage, is physiologically unnatural, abnormal, a violation of the laws of her physical system. In the language of the most distinguished writer on psychology in Great Britain, “she will then have lost her feminine attractions, and probably also her chief feminine functions.” One of the cardinal points in attachment between the sexes is, that certain opposite qualities or traits of character attract each other and form the most happy unions. Now, if the qualities and traits of character in woman are to be assimilated to those of man, what will be its effect upon matrimony and harmony in married life ?

In all the situations and pursuits of life the Almighty has established bounds or limitations beyond which woman cannot go without defeating the primary objects of her creation. The reasons are obvious. It gradually changes her organisation. By a physiological law of supply and demand, Nature, in the case of woman, makes certain drafts monthly upon her constitution. That this law of periodicity be properly observed is indispensable for good health and the highest development both of body and mind. Again, if the brain is relatively exercised too much, the body suffers ; so of the brain alone, there cannot be a steady strain upon certain portions of it without impairing the functions of other parts. Maternity is a primary law in her creation. Physiology, pathology, records of health, disease and mortality establish the fact that this is her *normal* state. In the observance of this law, certain physical conditions are indispensable ; there must be a proper development of those portions of the body concerned in this function ; neither can they answer the demands nature makes, if kept constantly impoverished.

(To be continued.)

## INDIAN MEDICAL NOTES.—No. XX.

(FROM OUR SPECIAL CORRESPONDENT.)

MEERUT, UPPER INDIA,  
May, 1874.

### “SOCIAL.”

UNFORTUNATELY, there's not a copy of Murchison in the station to find out what the connection is between rheumatic and enteric fever—so often forced on attention. Do persons catch enteric a second time ? What are the distinctive differences between it and remittent fever ? Thanks to leeches, mercurial inunction, shaving the head, to which ice for ten days and nights has been kept applied, wet sheet, inunction of the bowels, seidlitz powders, castor-oil enemata, the long tube to relieve meteorism, acetate of lead and morphia to control diarrhoea, at one time strychnine and galvanism to counteract constipation, at another, Peruvian balsam for the bed-sores, and the diet iced milk and madeira, four visits a day through the blinding, blazing sun—the case is now in hand, and as the flirt soon tires of one love, the interest now inclines to another enterical flame just encountered. Then, again, why do pulses go down to 40, and lower, or intermit during convalescence. To-day tried a tent for the sick ;

it was too hot, 106° at 4 p.m. Although a certain medical epicure has not the work required, he sends an interesting book with a very affecting passage interlined, which brings back memories of the Trafalgar, at Greenwich, in days of yore. “The dinner is to consist of turtle, followed by no other fish but whitebait, which is to be followed by no other meat but grouse, which are to be succeeded by apple fritters and jelly, pastry on such occasion being out of place. With the turtle, of course, there will be punch ; with the whitebait champagne ; with the grouse claret ; the two former particularly well iced. No other wines, unless a chance bottle or two of port, if particularly wanted. Take care there is cayenne, with lemons cut in halves, not in quarters, within reach of every one, for the turtle ; also brown bread in abundance for the whitebait. The dinner to be followed by ices and a good dessert ; after which coffee, and one glass of liquor each, and no more, so that the present may be enjoyed rationally without inducing retrospective regret.”

This passage is not inserted for padding ; there are materials more than enough in daily occupation and experience. India is a grand country for the doctor who cures his patients besides keeping his own health. This is the merry month of May, which might all be spent at Simla if the mornings at Meerut were not so delicious, the hospital work so interesting, the resources so numerous that a teetotaler and almost a vegetarian really prefers to stop here. Writing these “Notes,” however, is such a constant and interesting stimulus to middle-aged faculties of observation and reflection, that leave will be asked for shortly to prow about the country somewhere or other, and then to live the holiday over again on paper. Mess-living, including an occasional guest, and doing the thing comfortably, costs about £14, servants about £5, house-rent and expenses, say £5 ; horses, sundries, about £10 more—total, £34 a month ; or, not to put too fine a point on it, £40 will see a bachelor fairly through. Some live on a good deal less ; some spend much more, with nothing to show but dyspeptic faces. Every bachelor has his own secrets, which may prevent saving. Some, however, send so much a month to various investments in the country bringing in 5 per cent. Sir Astley Cooper said his life was a very pleasant one, to chat with a number of well-bred people every morning and send up to the banker a round sum periodically. In India, when patients do not die, the doctor's life is also very enjoyable. The pay of a surgeon ranges from 317 to 451 rupees ; of surgeon-major from 789 to 1,093 rupees ; whilst a deputy-surgeon general receives 1,800—that is, £180 a month. The married man's wife may be in the Hills, his children at school in England, whilst he lives alone *en garçon*, three establishments to pay. Take things all round, the married men, although frightful grumblers, have the best of it if they have married the right sort and both are blessed with health. The married doctor meets also with great consideration. It may not be out of the way to describe a day here—for instance, yesterday : Up at 5, ride to barracks, look in at the latrines, cook-houses, and married quarters ; inspect the men very critically, finding fault if the lavatories are not used, and admitting into hospital any man who looks ill. May and June are the months for heat-apoplexy, especially on pay-nights, therefore always be prepared, for delay means death, or paralysis. At the hospital, every man reporting sick should have his temperature taken. A soldier will come up for a dose of medicine feeling stupid, has a touch of the diarrhoea, dirty tongue, offensive breath, inability to sleep, pain in the back, wind in the stomach. The thermometer to be used at once for diagnosis ; also find out the patient's history, and if you hear of cerebral affections, convulsion, scarlet fever, or any renal mischief, no matter how long ago, shave his head at once, and clap on ice immediately. After visiting the men in their wards, the women and children in an adjoining building, arranging books, documents, &c., see that the punkahs are properly pulled, the tatties watered. It may so happen that the natives

are not all there, or a father will send a young child to do a man's work. Close doors from 8 to 5, and make a disturbance if the thermometer runs above 86°. Then ride to your house, a mile distant, shaded by an umbrella. The mail is in—letters, bills, medical papers—reading this, and after that, to breakfast with what appetite you may muster to attack the delicious water-melons, strawberries, or any other light food, followed by a sleep and another visit to the hospital, to see if all directions are being carried out. Next, as it so happened, there was a lunch to ladies at the mess, succeeded by badminton indoors in the palatial halls of a medical colleague—a festive soul who, like many others, keeps young by having pleasant people and pretty faces ever about him. The second tub was succeeded by the evening visit to hospital, where a case of uterine hæmorrhage, in addition to others, required attention. Afterwards a married officer gave a very pleasant dinner party, and though music is rarely heard—for pianos as well as voices feel the climate—one lady sang with great taste and pathos, and one worthy clergyman tootled on the flute whilst old officers talked of John Company—bonuses and off- reckonings. As the dog-cart was at the door it was no trouble again to visit a certain patient whose condition was critical. You cannot visit the hospital too often in India to ensure that when you turn your back others do not follow suit. Then, the day concluded, "tired Nature's sweet restorer, balmy sleep," was sought on the couch in the garden. Some roost on the roof, a dangerous experiment for the weighty and the corpulent, who might tumble through, as on treacherous ice.

## Transactions of Societies.

### DUBLIN MEDICAL SOCIETY.

! DR. GORDON presided at the meeting on May 13th, 1874.

DR. C. E. FITZGERALD read a paper, by permission of the Council, in the course of which he described the ophthalmoscopic appearances of the optic nerve in cases of cerebral tumour, and related an interesting case which he believed to be one of cerebral tumour.

DR. HENRY KENNEDY then communicated a paper on  
**INTESTINAL HÆMORRHAGE IN FEVERS.**

He began by quoting Dr. Stokes's remark of recognising the importance of bringing together the several symptoms in which the types of fever agreed with each other. With other authors it was the differences which prevailed that were insisted on; but Dr. Stokes thought the points on which they agreed were of more consequence to be known, and the author, following out this idea, asked the attention of the meeting to the subject of hæmorrhage, which he hoped to prove was not confined to any special type of fever. For the purpose of description he would divide these hæmorrhages into three classes—first, those met in childhood or youth; secondly, those occurring in typhus fever; and lastly, those complicating enteric fever. As examples of the two first, the author detailed some cases where, though a fatal result occurred after there had been hæmorrhage from the bowels, still, on post-mortem examination no ulceration whatever was found; and in one very remarkable instance a large quantity of semi-coagulated blood was found lying in the upper part of the ilium. None had passed outwardly, nor could the closest examination detect any ulceration whatever, or any affection of the glands of Peyer. The author considered the occurrence of hæmorrhage of this kind, without any absolute lesion, as a point worthy of more attention than it seems to have received, and he had little doubt that a something similar occurred also in enteric fever, though it was not to be questioned that the source of the bleeding sometimes was from the opening of a vessel in an ulcer. The question of the actual source of the bleeding the author thought was one of practical importance, for, according as it was looked upon as an exudation or from a vessel the remedies used would have to be altered, and so a medicine

such as turpentine might prove very useful in the one case and very injurious in the other. In the course of his remarks the author drew attention to the fact that the hæmorrhages of which he had spoken were much more common at some periods than others; thus, during the past winter and spring, the number of hæmorrhagic cases in Dublin was very great, as all knew who attended the meetings of the Pathological Society. Drs. Stokes, Hayden, Foot, Moore, Nixon, and others, had all exhibited specimens, and some of these gentlemen more than one. The localities, too, in which this class of cases occurred varied much; thus, in London they seemed to be very much more common than elsewhere—it had been stated as high as one in three. Possibly, however, this was an exceptional case. The author further stated that his experience of the results of these hæmorrhagic cases entirely agreed with what had been noticed long since by Graves, and concurred in by Trousseau—viz., that they were not at all so fatal as might at first be supposed. In his own experience the author had tabulated very nearly fifty cases, and amongst these the deaths were as near as might be one in four, which, considering the very serious character of all such cases, must be considered very favourable. The author regretted that the cases he had seen had not been as accurately distinguished from each other as was to be desired—that is, as to the type of fever. He wished also to state his conviction that cases of typhoid fever in private were more fatal than those seen in an hospital, just as was known to be a fact as regards typhus fever amongst the poorer and the middle or upper classes. On this point he wished to speak with some reserve, but such was his impression. In concluding, the author gave a *résumé* of the different questions noticed in the paper, and drew attention particularly to the special source of the bleeding in the cases brought under notice, on which he said he would be very glad to hear the opinions of the gentlemen present.

DR. DARBY said he had a number of cases in 1848, and then he saw for the first time bleeding in connection with typhus fever. The cases he had were, strange to say, different from the fever which he saw in the Dublin hospitals at that time; but he had some genuine cases of maculated typhus, and also some cases of jaundice. He would not call it yellow fever—for nothing could be more yellow than the skin—but there was no black vomit. One of these cases was that of a stout man who was admitted with maculated typhus fever, and on the 13th or 14th day he had a quantity of hæmorrhage, some of it in clots. He made a good recovery. He (Dr. Darby) had about eight cases of that kind within a period of six weeks or two months, and all of them terminated in the same way, with what he believed to be a critical hæmorrhage. He never saw a case in which there was hæmorrhage in the latter stage of fever result in death. He had not known of a case in typhus fever where there was hæmorrhage in which the patient died. He had seen one case, and only one that he could recollect, of hæmorrhage which he believed to be due to ulceration in typhoid or enteric ever that resulted fatally. It was that of a child 9 or 10 years of age, and he attributed death to the bleeding from the ulcers in the bowels. At the post-mortem examination he came to the conclusion that the child died from exhaustion occurring from the simple hæmorrhages. As far as his experience went, he thought that hæmorrhage was rare. He had seen bleeding of the nose occasionally, but never as a critical evacuation. The cases of genuine typhus fever that he had in 1848 and 1849 lasted three or four months, and he had not seen cases since.

DR. HAYDEN said it seemed to him that they should be a little cautious in accepting Dr. Henry Kennedy's conclusions as to the symptoms of hæmorrhage in fevers. No doubt many examples might be quoted. Dr. Kennedy had enumerated a few in which a fatal issue had not followed the occurrence of hæmorrhage in fevers. It was notably the case in typhus, and occasionally occurred also in typhoid. Dr. Hayden thought, however, that such cases constituted by far the smaller number, and notwithstanding Dr. Kennedy's conclusions, and his high authority on the subject, he (Dr. Hayden) confessed he regarded the occurrence of hæmorrhage in fever, especially typhoid, as a very unfavourable omen. He had seen cases of hæmorrhage in typhoid fever in which no ulceration occurred. One of these cases Dr. Kennedy had alluded to, where death followed a rapid flux from the large intestine. There it would have been very desirable to have diagnosed the absence of ulceration and the source of the hæmorrhage, and that would have been a case undoubtedly

where turpentine might have been used with good effect. In many cases where evidence of existing ulceration had been in the highest degree inconclusive, the post-mortem evidence had been satisfactory in proving its presence in an extreme degree, so that the absence of symptoms which might lead one to the conclusion that ulceration did exist would not warrant one in concluding that there was no ulceration. He thought from what he had seen of those cases he should rely more upon the range of temperature and rate of pulse as evidence or to the contrary of ulceration than upon any other evidence whatever. In a case that he had himself witnessed in the course of the last session, the range of temperature was never above 103°, and the pulse was never remarkably irregular. In that case the hæmorrhage was so copious that it saturated the bed, and flowed over the floor of the ward in which the patient was lying. The man sank rapidly and died. He should fear to encourage the impression, to form which Dr. Kennedy's paper would lead any medical man, that hæmorrhage should not be regarded as a formidable symptom in fever. He (Dr. Hayden) thought it was a formidable symptom, and the cases in which it had been found not to be a fatal indication were small in number. He knew of two cases that had occurred in females under twenty years of age in which the hæmorrhage was very copious.

Dr. GORDON (the chairman) quite agreed with Dr. Hayden in thinking that hæmorrhage was a most formidable symptom, and with regard to those cases that he could recall to his mind as having recovered, their restoration to health was almost marvellous. Their recovery took place when all prospect of recovery was against them. He quite agreed with Dr. Kennedy as to the mixed character of the cases in which hæmorrhage occurred. He (Dr. Gordon) saw no later than on the day prior to this meeting a case of fever in which the enteric symptom prevailed, although there was no trace of what was termed a typhoid rash, and not a single spot or typhoid eruption on the body, but from the symptoms and temperature he looked upon it as a case of typhoid fever. It was a case in which there were great chest complications, and one which he supposed was rapidly passing into tuberculosis. There were some circumstances in connection with the case which made him predict that it was one in which there was likely to be hæmorrhage. Unfortunately, his prognosis was verified last night, for there was very alarming hæmorrhage of the bowels, which recurred two or three times, and left the patient very weak indeed. It was an example of hæmorrhage of the bowels coming on in the second or third week of a fever, which was not marked by an eruption of any kind whatever, but in which the symptoms were more prominently those of enteric fever than any other. One very important circumstance he wished Dr. Kennedy had gone into was the treatment of those cases. He (Dr. Gordon) had about twelve months ago a very alarming case of typhoid fever which he took great interest in. It occurred in a person 22 years of age, and there were accessions of hæmorrhage at intervals of about seven or eight days, a protracted fever, and then two further attacks of hæmorrhage. Death then seemed imminent. He thought the recovery that was brought about in that case was caused by stimulant, enough to keep life going, being given in the form of the subcutaneous injection of ergot. He thought it had most decidedly a marvellous effect. He was of opinion that turpentine produced irritability of the stomach, and therefore could not be adopted. In such cases he would strongly recommend the subcutaneous injection of ergot—five or six drops of the ergotine.

Dr. HENRY KENNEDY, in reply, said that he did not for one moment question the gravity of hæmorrhagic cases. Out of very nearly fifty cases the deaths were exactly one in four. They would often see rises and falls in temperature occur in cases in which there was no hæmorrhage. As regarded the question of treatment he could not advise anything. He had tried the ergotine internally but not subcutaneously, and he had not sufficient experience of the medicine to say it was a useful one. He had certainly seen benefit arise from the use of turpentine, the patient's strength being kept up by the ordinary means well known to members of the Society.

The business of the Society for this session then concluded.

Dr. PROTHEROE SMITH has been elected a Corresponding Member of the Medical Society of St. Petersburg.

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THE

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## The Medical Press and Circular.

"SALUS POPULI SUPREMA LEX."

WEDNESDAY, JULY 8, 1874.

### THE HARVEIAN ORATION, 1874.

Dr. WEST was the orator selected by the President for this year, and on the 27th ult. a good audience assembled at the Royal College of Physicians to hear the annual *éloge* of the discoverer of the circulation.

Dr. West acknowledged at the outset that he had, since being appointed to the office, perused all the preceding orations of which he could obtain a copy, not, as we can well understand, with a view of borrowing from them, but in the hope of meeting, particularly in the earlier ones, with something to assist him in an attempt to set before his audience the man Harvey "in his habit as he lived." The attempt is not unworthy of the office, and it was so far successful that those unfamiliar with the story of his life will peruse with pleasure Dr. West's lecture—which has already been published as a small volume—and those who know the story well may compare their estimate with that of one who has just studied so many Harveian orations.

We may confess with Dr. West that his study has not been rewarded by any discovery of value, and he has, therefore, not the opportunity that Professor Rolleston last year enjoyed of enriching the College Library. Nevertheless, the story of Harvey and his times is just what may be expected to form the staple of these productions, and the lessons of patriotism, loyalty, open-handed bounty, forgiveness of injury and detraction, deep religious feeling, and devotion to his profession taught in his life, can never be ill-timed at a College commemoration of Harvey.

From his earliest trophy—the diploma of M.D. from the then great University of Padua, which is now preserved in the College archives—to his last will and testament all that relates to Harvey is of permanent interest. From the latter may be gathered some notion of his tender affection. Brothers, sisters, nephews, nieces, are all remembered, and to each some token of love is bequeathed; but Dr. West thinks that nothing, even in this touching document, is so touching as his reference to a certain Will. Foulkes, whether related to him or not does not appear, who seems to have been a feeble-witted person, and under the care of one of Harvey's nieces. He left to her "all the linen, household stuff, and furniture at Coome, near Croydon, for the use of Will. Foulkes." Further on he assigns a stated

yearly sum towards his maintenance; and then, in the last sentence, as if he feared lest something, in spite of all his care, might yet befall one so helpless, he provides for his custody in the event of the death of his niece Mary Pratt. There are also bequests to the poor of Folkestone, to the poor of Christ's Hospital, to the poor children of his cousin; and then, "one hundred pounds among other my poorest kindred, to be distributed at the appointment of my executors." Then there come in touches of kind remembrance of old friends. "My little silver instruments of surgery to Dr. Scarborough, and my velvet gown. Five pounds to my loving friend Dr. Ent, to buy him a ring to keep or wear in remembrance of me;" and, in a codicil, he adds, "ten pounds to my good friend Mr. Thos. Hobbes, to buy something to keep in remembrance of me." It is strange to find evidence of close intimacy between two men so widely different as William Harvey and Thomas Hobbes. Dr. West suggests that their common acquaintance with Bacon brought them in contact, and Harvey's genial temper would attach him to a man who "was well-beloved for his pleasant facetiousness and suavity."

Harvey was five years at the King's School, Canterbury. He then went to the University, entering Caius College 31st May, 1593. He took his B.A. in 1597, and then went to Padua. At that time Padua had somewhat declined; but still it held a high place as a school of anatomy and medicine, and taking advantage of Harvey's sojourn there, the orator mentioned a number of interesting points in its history which he had gathered from Meiner, Cibrario, Tiraboschi, Monteil, Colle, Riccoboni, Facciolati, and others. There are other reasons besides Harvey's five years' stay that render these particulars interesting, and we may therefore avail ourselves of Dr. West's researches and furnish some of them to our readers:—

Padua was once a university with 18,000 students—a true republic of letters, and a republic of a most democratic kind. The professors, originally elected by the students, were in Harvey's time still nominated by the University. The different faculties were independent of each other as far as their internal government was concerned, and the ecclesiastical censures which afterwards troubled the life of Galileo did not interfere with his functions as Professor at Padua. Two professors were appointed on every subject, the one a foreigner, the other a citizen of Venice. These professorships were not mere titles of honour, but, in addition to the fees paid by the students, the different chairs were well endowed. Thus, in the year 1598, about the time when Harvey entered there, the annual stipend of the Professor of Practical Medicine was 1,000 florins, a sum equal to nearly £500 at the present day; and Fabricius himself, as Demonstrator of Anatomy, received 500 florins, or nearly £250, while as Professor of Anatomy and Surgery together he received more than double that sum.

Instead of 18,000, there were at the end of the sixteenth century not above 1,500 students; but, in spite of diminished numbers, the old reputation of the place survived, and its old traditions lingered still about it.

Dr. West said: "The old customs had not yet fallen into disuse in Harvey's time. The medical session began on October 18th, the day dedicated to St. Luke, the beloved physician, when all assembled in the church (the

bishops and chief clergy being invited) to hear an oration by some doctor or other learned person in praise of the study of medicine, and to urge the scholars to its diligent pursuit; the whole assembly then heard mass, after which the Litany of the Holy Ghost was said; for in those days people held, in profession at least, to the belief—"If any of you lack wisdom, let him ask of God, that giveth to all men liberally and upbraideth not, and it shall be given him."

To Harvey, no doubt, the great attraction of Padua was its anatomical school, which then presented opportunities for study greater than any other in Europe. Twice during the academical session, which extended from St. Luke's Day to the Feast of the Assumption, on August 15th, the whole human body was required to be publicly dissected by the Professor of Anatomy. Nor were the means neglected to ensure the fulfilment of this regulation; for it was provided that, if no criminals were executed within the province of Padua, the University should have the power of claiming bodies from Venice, or elsewhere within the Venetian States. Not seven years before Harvey came to Padua, the Venetian Government had built there at its own cost a new anatomical theatre, and had placed over its entrance an inscription commemorating the liberality, as well as the genius of Professor Fabricius, who had built the former theatre at his own expense. Between Fabricius and Harvey a fast friendship seems to have sprung up, or rather that loving relationship which is so beautiful between the youth scarce twenty and the old man of well nigh seventy years.

In his liberality and indifference to wealth Harvey may have followed the example of Fabricius, who contented himself with his stipend, and refused large fees. When grateful patients forced their gifts on his acceptance, he with quaint humour arranged them all in one large room, and wrote upon the door "*Lucri neglecti Lucrum*," which Dr. West rendered—"See what I get by saying No!"

The name of Fabricius is the first subscribed to Harvey's diploma. Next to it comes that of John Thomas Minadous, an accomplished and much-travelled man, the son and brother of physicians, and they of no mean repute. Next comes the name of Julius Casserius, a native of Piacenza, whom Fabricius took out of compassion as a poor boy to be his lackey. The lad showed parts; Fabricius taught and trained him, and so from valet he became pupil, from pupil friend, then colleague of Fabricius, and, last of all, his successor in the professorial chair. Servitor, Sizar, Tabarder—terms and conditions which we have now done away with in our universities—brought then no sense of inferiority, for all felt equal in their citizenship in the commonwealth of learning.

"Let these suffice," said the orator, "as samples of the men with whom Harvey was in daily intercourse. It would be easy enough, especially if one travelled beyond the somewhat narrow circle of those whose pursuits were exclusively connected with the profession of medicine, to swell the list of those remarkable alike for their genius and their culture, who were the inheritors of all that was most worth the possessing of that wonderful *renaissance*, that new birth of the world, out of which came alike the evil and the good of modern society."



Dr. West having glanced at the great period in which such giants in literature and science arose, passed on to the time when Harvey began practice, a time in his life of which we know little, and then turned his attention to the anatomical discoveries which fell thick upon the half century that culminated in Harvey's great work. Into these details it is not necessary for us to plunge, since they are all matters of medical history, though briefly and pleasantly repeated in the Harveian Oration for 1874.

### THE IRISH APOTHECARY QUESTION.

THE Irish Pharmacy Question may be said to be adjourned for a parliamentary year by the remission of Mr. George Errington's Apothecaries' Bill to a select committee; for although the committee, consisting of Mr. Errington, Sir Michael Hicks Beach, Sir John Gray, Mr. Corry, Dr. Cameron, Mr. Leslie, and Mr. Chaine, has been nominated, it is not certain that they will meet this session, no witnesses have been summoned, and it is hardly possible that they can—even if they sit this year—report to Parliament during its present session. No one, however, will regret the delay, if it be intended to institute a thorough inquiry into the subject; the more light is thrown upon the present position of the Irish Apothecaries' Company, the more certainly will the desired object—that of putting an end to the misuse of its legal powers, and placing the control of Pharmacy in Ireland in competent hands—be attained. No one, except the majority of the Directors of the hall, has anything to fear from investigation; and it is much better that the question should be settled by the House of Commons, in the interest of the public, than that it should be cobbled up by means of a compromise between druggists and apothecaries. We understand that the Irish Chemists' Association has a second time brought the Directors of the Hall to their terms, and that the *ordre du jour* is, for the present, cordiality and reciprocity; but we believe it may be conceded that, whatever settlement of the question be eventually attained, the proposed Bill of the Company, which is to adjust the matter in their own interests, is entirely delusive, and will never become law, either in this or any other Parliament. We have reason to know that there is a severe squall brewing in the Medical Council, which may add fresh difficulty to the already embarrassed position of the Company; meanwhile, the Amended Bill of the Irish Apothecaries' Company has made its appearance.

The proposition of the Company provides for the establishment of no less than three grades of pharmacists in Ireland—firstly, the licentiate apothecary now in existence under the Company's Act, who is required to pass through a curriculum and examination in medico-chirurgical subjects, and is supposed to be a medical practitioner as well as a dispenser; secondly, the pharmaceutical chemist, who shall pay £5 5s., shall pass only through a pharmaceutical and arts examination, and three years' apprenticeship, but shall be entitled to compound prescriptions; and, thirdly, the chemist and druggist, who shall pay £1 1s., and shall, if now in business, pass no examination, or, if not yet so employed, shall submit to a "modified examination," and

shall be entered on the list of chemists and druggists, but shall not compound prescriptions.

The pharmaceutical chemists so licensed are to be erected into an Irish Pharmaceutical Society, in whom is vested the election of a part of the examining board, and the "making of bye-laws and rules for the advancement of pharmacy and the good government of the society."

The examining board is ultimately to consist of four members of the Court of Examiners of the Apothecaries' Hall, and eight appointed by the Pharmaceutical Society, and, finally, the Bill imposes upon persons falsely assuming the titles or functions of registered chemists penalties similar to those declared by the Medical Act.

We think it right to give this sketch of the Bill, although it has not been introduced into Parliament, and may be looked upon as representing the desires of the Directors of the Hall rather than a serious proposal for the acceptance of Parliament. If the Bill ever arrives at the dignity of a parliamentary measure, it will need, and we believe receive, the firm opposition of every member of the medical profession and of the licentiate apothecaries themselves. In its present stage of development it is no more than a somewhat audacious incorporation of demands which could not for a moment be listened to either by the profession or the public.

### A NEW PROPOSAL FOR MEDICAL REFORM.

THOSE who are conversant with the proceedings of the General Medical Council will not fail to remember that Sir Dominic Corrigan, as representative of the Queen's University, is the uncompromising and immovable opponent of conjoint examination, but we have not hitherto been as explicitly informed as we could desire as to what alternative the learned baronet would propose. A proposition has, however, been very recently submitted by him to the College of Physicians in Ireland, which places his views beyond any doubt, and which, emanating from so representative a man, deserves, and has received, every respect and attention. Sir Dominic Corrigan's suggestions are in the form of a proposed Bill to amend the Medical Act, and are briefly as follows:—

1. That in future no person shall be registered without separate diplomas in *both medicine and surgery*.
2. That in future, though any person holding degrees or diplomas from a licensing body shall be entitled to practise, no person shall be allowed to hold any public appointment whatever unless he shall, in addition to his diploma examinations, have passed an examining board, which is to be called the Civil Medical Board, and in respect of so passing, he shall be entitled to add the letters C.M.B. to his titles in the register.
3. That this Civil Medical Board shall consist of seven examiners from each division of the kingdom, appointed by the Medical Council, but whether localised in London or peripatetic, the draft bill sayeth not.
4. That this Board shall have nothing whatever to do with curriculum, or methods of study, and that the fee for admission to its examination shall be £5.

We understand that Sir Dominic Corrigan's Bill was rejected by the College by a majority of six. The most superficial glance at its provisions is sufficient to indicate a

vital fault in its principle, in pointing out which we content ourselves for the present. It enunciates the principle that the degrees now conferred by licensing bodies are an insufficient guarantee of competency to hold a position in even the lowest grade of public medical service, and yet it permits any person to engage in the most extensive private practice, and to hold the office of Physician to Her Majesty the Queen, which Sir Dominic Corrigan himself occupies without the possession of that *imprimatur* which he declares to be necessary for the tenancy of a dispensary at Ballysloughgattery.

The *sequitur* is inevitable. If colleges be incompetent or venal, and abuse their privileges of admitting ignorant persons to the profession, they should be unhesitatingly superseded—if not—the function of Sir Dominic Corrigan's C.M.B. is evidently redundant.

### CHOLERA IN FRANCE IN 1854, 1855, AND 1865. (a)

#### III.

(Continued from page 535, vol. xvi.)

#### THE EPIDEMIC OF 1865.

TEN years elapsed after the epidemic of 1855, when in 1865, cholera for the fourth time made its irruption into Europe. On the three previous occasions it had advanced from the north-east; this time it invaded from the south, appearing first at Marseilles in the month of June. Immediately afterwards it extended to the valley of the Rhone; in August it had reached the Saône-et-Loire; in September the departments of the Seine, the Seine-et-Oise, la Drôme, l'Hérault, la Haute-Marne, Savoy, and les Pyrénées-Orientales. In October, in l'Allier, l'Eure-et-Loire, l'Oise, l'Aisne, la Seine-Inférieure, la Moselle, and the Pas de Calais. In November, l'Orne, la Manche, Tarn-et-Garonne, and the Vosges, disappearing in l'Allier, l'Hérault, l'Eure-et-Loire, and la Haute-Marne. In December it reached Finisterre and Calvados, still persisting in some of the departments invaded three months before; it prevailed with violence at Cherbourg during the three most severe months of winter. In the course of the following year, the disease, which elsewhere seemed to diminish, broke out afresh in Paris during the heat of summer, proving also very severe in Amiens in June and July, extending in the latter part of 1866 towards the north-east of France, and not finally disappearing till the end of 1867, after having invaded fewer departments and caused less mortality than the preceding epidemics. With the exception of its point of arrival and direction followed, this epidemic presented no points of difference from either of the preceding. The hot season was that in which, for the most part, the disease prevailed with greatest severity; this was especially the case at Marseilles and Toulon, while at Paris the first outbreak took place in October, 1865, with a recurrence of the affection in June and July 1866; its great intensity having also taken place at Amiens during the same two months. Cherbourg, however, was an exception, the epidemic having there been most severe in December. Unlike the epidemic of 1849, it seemed then to acquire an aliment suited for its development, proving that when the disease breaks out at that season it may prove as severe as during the hot, in which it usually occurs. As in previous epidemics, that of 1865 ravaged some places that on previous occasions had been exempt, or but slightly infected; thus, Amiens, with a population of 50,000 persons, which had only 165 deaths in 1854, lost 1,694 in 1866, of which number 1,416 in July. On the other hand, although the

communication between Lyons and Marseilles was constant, the ravages of the disease in the former during each of the epidemics was small. In 1849 the disease had been limited to the military hospital; in 1855 there were 525 deaths; in 1865 only about 100; in 1866 only 18, and no more than 50 attacked. The recurrence of the disease in Paris after being dormant during a period of six months seems to indicate that the germ of the disease may remain latent for a certain time, and then under favourable conditions become active, heat being the principal of them. With regard to the decrease in the numbers attacked in particular localities, Dr. Vinci, of Naples, finds explanation in the decrease in the numbers susceptible of attack, and he recommends that persons who had fled from infected localities, or strangers about to enter them, ought not to enter them until some days after the cessation of the disease. As in previous epidemics, premonitory diarrhoea, although not invariably present, was so very generally. According to M. Baudrimont, the albumen of the blood, transformed into *diascase* in cholera, was found in the alvine dejections mixed with a matter resembling beer yeast. The improved hygienic conditions of localities as compared with previous attacks seemed to diminish the number of cases in 1864, but the ratio of mortality was about equal to that in other epidemics; also that in some conditions, in Paris for example, mortality was great, although the number attacked was relatively few. With regard to the pretended immunity of certain professions, the epidemic of 1866, like those preceding, furnished negative or contradictory conclusions; thus, while according to some the inhalation of gas disengaged from oil had a preservative effect, Dr. Créquy shows that *employés* in gas manufactories enjoyed no special exemption from the disease.

With regard to the nature of the disease several reports indicate, as on previous occasions, its identity with paludal fevers; Dr. Poggioli considers the disease to consist in a deficiency of electricity in the body; but in these theories nothing has been adduced to support the conclusions arrived at, nor was anything scientifically new discovered as to the nature of this disease, which, according to the Committee, is not identical with any other but is altogether *sui generis*. As to the *genesis* of the affection no new theory was brought forward. The great majority of authors recognised India as the "home" of the disease, Dr. Balaguer referring its chief source to Hyderabad, and all tracing the epidemic of 1832 to its extension from Asia. In like manner, that of 1859 was attributed to the same "home;" and if that of 1853 seemed to be the recrudescence of germs only partly destroyed in some parts of the east and north of Europe, the epidemic of 1865 seems to have travelled by sea to France. In May, 1865, pilgrims from all points of Islam assembled at Mecca for the festival of Beiram. Until the arrival of those from India there was no cholera among them, but on their arrival it manifested itself and spread among them, placed as they were in the worst possible hygienic conditions. The pilgrims subsequently embarked at Djeddah, arriving thus at Suez, then at Alexandria, where cholera broke out on 11th June; on the 17th it extended to Aboukir, Tintah, and Cairo, seven days afterwards Rosetta, Damietta, and Mansourah. It appeared in Constantinople on the 28th of June, three days after the arrival of the ship *Moukberi-Surur* from Egypt, some persons on board suffering from diarrhoea having been sent to the marine hospital there, the cholera first appeared where they had disembarked. Shortly afterwards it appeared at Ancona, Barcelona, and Marseilles, extending thence from south to north, from Lyons to Paris. Thus, in following the advance of the disease from Mecca to Alexandria, seeing it soon after appear at Constantinople, then at the commercial capitals of Italy, Spain, and France, all of which have frequent relations with Alexandria, we see in this succession all the characters of a disease imported from India into Europe. Sicily, which refused to admit any suspected vessel, remaining exempt.

The greater number of reporters discuss the question of how the disease, once introduced into France, propagated itself. Some of them continued to maintain the opinion

(a) Rapport sur les Epidémies du Cholera Morbus qui ont régné en France pendant les Années 1854 et 1855. Par M. Barth. G. Masson, Paris, 1874.



of its spontaneous development under conditions unknown to them; but the majority believed in its extension from infected places, although, the Committee observes, it does not follow with the same degree of certitude that each new explosion of the disease should be from a fresh importation. As to the *agents* of importation and modes of transmission of the disease, it is found from the reports that these are not limited to people and their things, but include also other matters, and it is observed that during the epidemic of 1865, in Russia, the transmission of the disease by man was only observed in reference to two towns, namely, Odessa and Borch. According to Dr. Roch, cholera was imported in the Isthmus of Suez by its *foci* (foyers), and not by contagion properly so-called. These *foci*, transported by the pilgrims disembarking at Suez, or formed by them at Alexandria, spread along the fresh-water canal to Serapium, Ismalia, and to the threshold of El-Guisr, where it seemed to be arrested. In France, some authors of reports consider that the disease was not directly imported, and give instances, as at Raon-l'Étape, Vosges, Pontoise, Argentan, Orne, Mayenne, Montataire, and Oise. Dr. Bourguet in his report on the epidemic at Aix-en-Provence, considers that not only people and things, but also the air may convey cholera, as in the case of all other epidemics. He cites sixteen attacks in which no contact with other cholera patients could be traced, but many others clearly trace the direct conveyance by human agency of the disease from a contaminated to a healthy locality, so as to leave no doubt on the matter. Nor were there wanting evidences that persons may be the means of conveying the disease without themselves being subjects of it either at the time or subsequently, instances of this being cited in the reports; also that the germs of cholera being introduced into a locality the disease does not always break out in a fatal form, seeming to require for this purpose special conditions of an atmospheric or telluric character the precise nature of which it is difficult to determine. With regard to individuals who become attacked or remain free from the disease, this seems to depend upon conditions of strength, health, predisposition, and idiosyncrasy, permanent or transitory, the characters of which also remain unspecified. Cholera, like all other transmissible diseases, may therefore, when brought to a locality, be transmitted from an affected to a healthy person, but as with the locality, so the individual must have the morbid aptitude necessary to receive it.

As in previous epidemics, that of 1865 indicated that bad hygienic conditions of persons or localities conduced to the occurrence of cholera, Dr. Maurin, of Marseilles, being even of opinion that contagion only acts where these conditions are defective, and the dejections abandoned without being previously disinfected. The necessity of disinfecting the objects and habitations is indicated with greater force in the reports of the epidemic of 1865 than in those preceding, it being observed that under certain conditions both may retain the germs of the disease during a long time. Dr. Baldou reports an instance where those germs were thus retained active during one entire year in a room that had remained shut up without being cleaned or attended to subsequent to the occurrence in it of a death by cholera. The isolation of the affected was insisted upon whenever practicable, also the avoidance of crowding, and distribution of the sick in hospitals or buildings specially appropriated, although it is pointed out that it is seldom practicable to prepare in advance a sufficient number of the latter against an epidemic. All the writers agree that when the country is attacked it is impossible by means of sanitary cordons to preserve a locality from attack, although several point out the importance of subjecting to disinfection and other sanitary precautions the persons so arriving and all belonging to them. If possible, measures should be taken at the frontiers to prevent the introduction of the disease into the country, or, better still, to arrest it near its source by means of international measures of a sanitary nature. These measures ought to be taken against its introduction into Egypt, from which it has hitherto

been introduced into France. The greater number of medical men advocate rigorous quarantine measures, and some suggest that they should be more strict than they are, five days being, according to them, insufficient where communication takes place by sea. M. Languadin considers that the period of incubation of cholera extends to ten or even fifteen days, and that therefore the period of quarantine ought to be about twenty days. M. Bourguet, of Aix, having established that cholera may be transmitted to a distance, that the air becomes tainted by its germs and vitiated to a greater or less distance from its source, declares that sanitary cordons are powerless, that lazarets and quarantine establishments in towns, or at a little distance from ports of commerce, are of little use, and that to be effectual they ought to be situated some distance at sea. He proposes to establish sanitary medical officers at the principal cities in India and Asia where cholera is endemic, and as has indeed been done ever since 1864 in India. He instances the good results which have followed that measure in Egypt, Turkey, Syria, and other places where plague becomes spontaneously developed. Dr. Cazalas, on the other hand, declares measures of quarantine to be useless, that they are always taken too early or too late, these views being based upon his theory that cholera is engendered on the spot, and is not transmissible.

In the treatment of the disease the reports of the epidemic of 1865 confirm those of previous epidemics as to the importance of the early employment of remedies; the majority also believe that no one plan of treatment is applicable in all cases, but that different therapeutic means, even opposed to each other in appearance, may conduce to the same end, and meet the symptoms observed at the bed-side. It is also observed that the proportion of fatal cases in 1865 was as nearly as possible what it had been on previous occasions. Besides the remedies already mentioned, the following have been used, namely—Sulphuric lemonade, recommended by Dr. Worms, citrate of magnesia, bicarbonate of soda, subnitrate of bismuth, bichloride of mercury, sulphate of copper, arsenic, sulphate of quinine, aconite, the nitrites, spirit of camphor, ergotine, calabar bean, phenic acid, benzoic acid, benzoic ether, benzoised water, static electricity, pepsine, inspiration of oxygen and iodine, chlorine fumigations, mustard baths, painting the abdomen with castor-oil, the suppression of all drinks, injection of salt water into the subcutaneous tissues, injection of the defibrinated blood of animals, &c. All these, however, like the other remedies proposed, have proved failures in true cholera, although each in turn has been vaunted by its advocates.

## Notes on Current Topics.

### Laughter.

THE *Journal of Mental Science* reports that Dr. Ewald Hecker has made some ingenious observations on the physiology of laughter, which are recorded in the "Zeitschrift für Psychiatrie," xxix. Band, 6 Heft. Laughing may be produced in two ways, by tickling or by the presentation of a humorous idea to the mind. The application of a stimulus to the sensory nerves has been proved by Nothnagel and others to produce, through the agency of the sympathetic nerves, a contraction of the blood-vessels, and this condition is known to be accompanied by dilatation of the pupils. Dr. Hecker has found, by careful observation, that during the process of tickling there is a slight but decided intermittent dilatation of the pupils. This is best observed with young

people. Dr. Hecker, therefore, assumes that during tickling there is a contraction of the vessels and an increase of the tonicity of the vascular walls. There is thus a relaxation of the pressure of the vessels on the brain, and by the *vis a tergo* effect of the muscular movements which accompany laughing, the blood is drawn from the veins to the heart during inspiration, while during expiration the column of venous blood is arrested. This explains the swelling of the jugular veins and the reddening of the face during violent laughter.

The author, therefore, concludes that laughing is a reflex movement destined to counteract the intermittent relaxation of pressure on the brain, through an increase of pressure. The cause then of laughter seems to be a diminution of the pressure of the vessels on the brain through an increase of the tonicity of their coats. Dr. Hecker affirms that when a comical idea is presented to the mind causing laughter there is also a dilatation of the pupils.

I may here observe that there is another way by which laughter may be produced—viz., by forcibly pressing with both hands the arms and legs from the extremities upwards, so as to push the column of venous blood in the limbs towards the heart. As this is very likely accompanied by a lightening of the pressure of the venous current upon the brain, it may be a confirmation of Dr. Hecker's theory.

It appears from a notice in the "Centralblatt" (No. 10) that Dr. Hecker has published a pamphlet of eighty-three pages, upon the "Physiology and Psychology of Laughter and the Comic," Berlin, 1873, in which his studies on the subject are pursued.

#### "Inter-Hospital" Accommodation.

LORD ELIOT writes to the *Times* to suggest that when they close for repairs *special* hospitals should make some arrangement with *general* hospitals to receive their in-patients, or, if that cannot be done, that a fund should be raised for the purpose of enabling those who would otherwise be in-patients at special hospitals to obtain additional comfort in their own homes. His lordship looks upon the diet, rest, and other advantages of the hospitals as invaluable, and instances a case in which these were much praised by a patient of the Hospital for Epilepsy. Just now we may add St. George's Hospital is closed, so that generals and specials are in the same predicament.

#### The "Retrospect."

We are glad to welcome the 67th half-yearly volume of "Braithwaite's Retrospect," which is now the only work of the kind. The selections are made with great care, and the synopsis is becoming a very valuable feature.

#### Practice in Chili.

THE British Minister has made representations to the Chilean Government complaining that our English diplomas are not recognised there. A correspondent says that the examinations in Chili are conducted in Spanish, by a board of examiners who may find a rival in the new comer, and therefore do not wish to admit him. Hence it is argued that qualified Englishmen are refused leave

to practice, while quacks abound and do much mischief. The Chileans deny that English physicians are up to their standard. A good deal of gossip has taken place on this subject. Perhaps it would be only just to remember that we in England do not register Chilean diplomas. Some of us would also argue that Chilean physicians are not up to our standard. If a Chilean physician of the highest pretensions appeared at one of our boards he would be examined in English, and he would have some difficulty in being admitted as a candidate. Until he had achieved this the General Medical Council would not place his name on the register.

#### The College of Surgeons.

MESSRS. MARSHALL, HILTON, and BAKER succeeded at the election into the Council on Thursday last. Some two hundred and thirty Fellows voted, and the polling was prolonged till 5 p.m. The numbers for each candidate were as follows:—Mr. Marshall 152, Mr. Hilton 116, Mr. Baker 102, Mr. Smith 95, and Mr. Hussey 58. The numbers of "plumpers" for each candidate were—Mr. Marshall 13, Mr. Hilton 19, Mr. Baker 11, Mr. Smith 20, and Mr. Hussey 3.

#### International Medical Congress.

THE organisation of an International Medical Congress at Brussels, in 1875, is being carried out with great activity. The President is to be Dr. Vleminckx, President of the Academy of Medicine, who has already presided over other scientific congresses with tact and authority. The Belgian Government has promised its co-operation, but it belongs specially to the members of the medical profession to set their shoulders to the wheel in order to make the scheme work.

#### General Medical Council.

As the Council meets to-morrow (Thursday), it seems idle to prophesy, and really little interest has lately been evinced about its proceedings in professional circles. Conjoint schemes to examine there are none, and the remarks of the visitors of examinations are currently reported not to contain anything terrible.

#### Hospital Sunday.

It is not even yet certain that London has this year collected as much as last, and the only point of much interest relates to the distribution of the fund. It will seem to many that the metropolis has done very badly compared to the example set by the provincial towns. The difficulties of organisation are enormous, but they are nothing to the apathy of the mass of the population.

#### Therapeutic Use of Common Glue.

If we are to believe a correspondent of the *Scientific American*, an invaluable therapeutic agent for hermetically sealing of wounds is at hand in every workshop in the form of common glue. He says:—

"For the last twelve or fourteen years I have been employed in a shop where there are over three hundred men at work, and, as is the case in all shops of this kind, hardly a day passes but one or more of us cut or bruise our limbs. At first there were but few that found their

way to my department to have their wounds bound up ; but after a while it became generally known that a rag glued on a flesh wound was not only a speedy curative, but a formidable protection against further injury. I was soon obliged to keep a supply of rags on hand, to be ready for any emergency.

"A man was running a boring machine, the sleeve of his shirt caught in the auger, bringing his wrist in contact with the bit, tearing the flesh among the muscles in a frightful manner. He was conducted to my department and I washed the wound in warm water, and glued around it a cloth, which, when dry, shrunk into a rounded shape, holding the wound tight and firm. Once or twice a week, for three or four weeks, I dressed the wound afresh, until it was well.

#### Dr. Letheby's Successor.

At the last meeting of the Commissioners of Sewers, notice of the following motion was given :—

"That a special committee be appointed consisting of nine members, to inquire and report as to the legality of the late election of a medical officer and food analyst, with power to have any legal assistance they might deem necessary, and report to the next court."

#### The Naval Medical Service.

THE death of Sir Alexander Nisbet renders vacant a good-service pension and the Honorary Physiciancy to the Queen. Sir A. Nisbet became Inspector-General of Hospitals and Fleets in 1855, was awarded his pension in 1865, and knighted last year.

Sir Alexander Nisbet's death gives rise to a move in the list of inspectors-general. It is said Dr. Davidson or Dr. Salmon will probably retire. Deputy-Inspector Mason, at present in charge of the Naval Hospital at Malta, will thus get a step.

The vacant post of Honorary Physician to the Queen is likely to fall to Dr. Smart, C.B.

#### Drug Sophistication.

ANENT the adulteration question, those interested will find in the American *Druggist* for May last an editorial article on the frauds which are habitually perpetrated by the substitution of chicory and other matters for dandelion in the preparation of extract of taraxacum. The writer firmly believes "that four-fifths of the dandelion used in America of late years is chicory. This custom has prevailed because no harm has been known by it, and because no great objection has been made to it." He, moreover, roundly charges that this fraud is principally to be found in the extract of taraxacum which is imported into America from England, and says that "almost all the imported extract of taraxacum is made from the chicory intybus, and we once had an English manufacturer contend it was the true kind to use."

But neither is chicory the only adulterant of dandelion, nor is the extract of taraxacum the only extract in which the fraud is habitually perpetrated. The editor of the *Druggist* has recently received a specimen of so-called ext. tarax., which he thus describes : It is made in Vermont, from a residuum in the distillation of oil of fir. They put into the kettle in which this stuff is boiled down a few dandelion tops and roots as dug up in the fields, to give it a flavour, and it has a little of the odour of dandelion ex-

tract which has been burned ; by heating the balsamic odour is more developed. A prominent manufacturing house of Philadelphia has purchased 2,000 lbs. through their agent in New York at 14 to 20 cents. per lb., and their card rate for the same is \$2.00.

"This," says the editor, "is no new dodge. It is well known that all kinds of what are called *common extracts* are put upon the market from the east (i.e. from England), but we did not know before what constituted the base, although they have a tarry appearance. This is now fully explained. All such extracts are totally inert and unfit for use, and their consumption has been and is large, be it said to the discredit of many doctors, who buy them because they are cheap, and druggists sell them because they buy them at a low price and sell them for a large profit.

"We have not time before going to press to fully complete the comparative examination, but have proceeded far enough to determine definitely that it contains really none of the properties or characteristics of dandelion, and to state advisedly that it is one of the most outrageous impositions on the profession and public that we have had occasion to investigate and expose. How long such frauds will continue to be perpetrated depends entirely upon the medical profession, who by throwing the worthless stuff back on the hands of those who manufacture and sell it, at a loss to them, may by this means force them into a line of honesty and fair dealing."

We suppose we shall be told by the English drug trade journals that all this is "in the way of business," and that our purism is ridiculous and behind the age, and that extract of chicory and fir refuse is a proper and honest article of merchandise, because it cannot be shown to be poisonous. Our old-fashioned code of morality holds that the manufacturer who makes up such a preparation, and the druggist who sells it knowing it to be false and fraudulent, is neither more nor less than a swindler, and ought to be dealt with as such by all honest people.

#### The International Sanitary Conference.

THE International Sanitary Conference at Vienna has decided that only in India cholera is endemic, and its outbreaks in Europe are due to importation from there. Dr. Dickson stated at length the regulations of the Indian Government for the improvement of the sanitary condition of India.

The Conference has rejected the theory of Pettenkofer that cholera is transmitted by healthy persons as well as patients. They agreed that living animals and foods could convey infection.

#### The Nursing Question.

WHILE the meeting promoted by the Order of St. John, and commented on in our last, was being held, another took place at Grosvenor House, for the purpose of establishing an annuity fund for trained nurses. This is not in any wise in rivalry to the more ambitious scheme, and it was intimated that it might even amalgamate. Not too soon, we hope, for it is quite possible that it would be wiser to keep the annuity fund separate, and let it apply to all nurses, whether in the St. John's Society or not. The Duke of Westminster, Baron de Worms, Professor Erichsen, and Mr. Brudenell Carter moved the resolutions,

and subscriptions and donations to a considerable amount were announced—£70 of the former and more than ten times as much of the latter. This is a good beginning, and a well managed fund may be the result.

### London Hospital.

THE new wing long talked of will soon be a reality. The foundation-stone has been laid, and the workmen are busy upon the building. This will give the hospital, when complete, 800 beds. As the Grocers' Company gave £20,000 towards the fund required, it is to be named after them. As announced last year, £100,000 was needed. About £94,000 has been raised. Will not some one with a fund to spare send a further £5,000? The Committee would be greatly relieved if £10,000 were sent. The money could not be presented to a better institution.

### Indian Medical Service.

As we announced, Surgeon-General Gordon, C.B., will leave Aldershot, to which he lately went, for India. He will go to Madras, to take the chief office of the Presidency.

Surgeon-General Currie, C.B., leaves Madras for Simla, in order to take the place of the late Surgeon-General Beatson.

Probably Deputy Surgeon-General Bent will, as senior, step into the full rank, and it is rumoured that possibly some further movements may be effected by the probable retirement of one, if not two officers.

### King's College Hospital.

DR. FERRIER is a candidate for the Physiciancy to King's College Hospital. For the Professorship of Materia Medica in the College, Dr. Burney Yeo, who has lectured on the subject in the College, and Dr. Milner Fothergill—a paper from whose pen lately appeared in our columns—are declared candidates. It is rumoured, too, that a third candidate may be induced to come forward in the person of Dr. Handsel Griffiths, whose works on materia medica and therapeutics are well known to all our readers, and who is a favourite teacher.

### The late Mr. T. J. Baker.

MR. T. J. BAKER, M.R.C.S., has fallen a victim to a mistake. He went at night to fetch a bottle from his surgery, and took up the wrong, containing carbolic acid. He took a dose before discovering his mistake, and vomited immediately. Nevertheless, he died in a very short time.

Mr. Baker was in this case the victim of his own mistake; but the accident serves to illustrate the dangers of such poisons as carbolic acid being found everywhere in such bottles as are usually employed for dispensing mixtures.

### New Books of the Month.

#### Medical and Surgical.

BLOXAM, Laboratory Teaching; or, Progressive Exercises in Practical Chemistry. 3rd ed. 5s. 6d.

Braithwaite, The Retrospect of Medicine. Vol. LXIX. 6s.

Clay, The Complete Handbook of Obstetric Surgery. 3rd ed. 6s. 6d.

Gant, A Guide to the Examinations at the Royal College of Surgeons of England. 3s. 6d.

Leach, The Ship Captain's Medical Guide. 6th ed. 1s. 3d.

Lund (Edward), Five Years' Surgical Work in the Manchester Infirmary. 3s.

Meadows, The Prescriber's Companion. 3rd ed. 3s. 6d.

Parrish (E.), A Treatise on Pharmacy. Designed as a Text-Book for the Student. 4th ed. 3ls. 6d.

Shapter, Notes and Observations on Diseases of the Heart, and of the Lungs in connection therewith. 7s. 6d.

Southall (W.), The Organic Materia Medica of the British Pharmacopoeia. 2s. 6d.

Swain, Surgical Emergencies, for the Use of General Practitioners. 6s.

Van Buren and Keyes, A Treatise on the Surgical Diseases of the Genito-Urinary Organs, including Syphilis. 2ls.

#### Natural History.

Coues (Dr. E.), Field Ornithology: a Manual for Procuring, Preparing, and Preserving Birds, and a List of North American Birds. 12s. 6d.

Packard (A.), Relations of Insects to Man. 1s. 6d.

Saxby (Henry L.), The Birds of Shetland. 2ls.

#### Science.

Bateman (James), A Monograph of Odontoglossum. 147s.

Darwin (Charles), The Structure and Distribution of Coral Reefs. 2nd ed. 7s. 6d.

Johnson (Rev. S. J.), Eclipses, Past and Future; with General Hints for Observing the Heavens. 4s.

Orme, An Introduction to the Science of Heat. 3rd ed. 3s. 6d.

Symons (G. J.), British Rainfall, 1873; or, the Distribution of Rain over the British Isles during the Year 1873 as observed at about 1,700 Stations in Great Britain and Ireland. 5s.

Wanklyn and Chapman, Water Analysis. 3rd ed. 5s.

### University of London.

THE Senate on Wednesday adopted, by seventeen votes to ten, the following amendment on a proposal to obtain a new charter enabling the University to confer degrees on women: "That the Senate is desirous to extend the scope of the educational advantages now offered to women, but it is not prepared to apply for a new charter to admit women to its degrees."

### The Hunterian Museum.

THE Royal College of Surgeons of England has just presented the profession with the annual report of Professor Flower, their conservator. The plate of the collection is very creditable, and many valuable additions have been made during the year.

The pathological, osteological, and physiological collections have been largely added to during the year; but we have not space for details this week. There have been many additions to the collection of instruments. This department, it will be remembered, was originated by Sir William Fergusson, and amongst the donors are Messrs. Wormald, Prescott Hewett, Jabez Hogg, T. L. Hussey,

G. L. Wood, T. M. Stone, T. Carr Jackson, H. Bellott, and W. H. B. Winchester. The Fellows and visitors crowded the Museum during the exhibition for the purpose of examining the additions, in which they appeared to take great interest.

DR. J. FAYRER, C.S.I., has been appointed Physician to H.R.H., the Duke of Edinburgh.

ON Thursday last, the deed was signed by Mr. Albert Grant transferring Leicester Square to the Metropolitan Board, and the garden was thrown open to the public.

AGAIN there is talk of cheap gas being possible. The Board of Works has resolved that its duty is to protect consumers. Good as well as cheap gas is wanted.

IN the House of Commons last week, in Committee on the Valuation of Property Bill, Mr. Russell Gurney proposed a new clause exempting hospitals and infirmaries from rating. The clause was rejected by 162 against 41.

THE following offices are now vacant in King's College, London: The Chair of Materia Medica, the Chair of Comparative Anatomy, and the Physicianship of King's College Hospital.

THE Dean of the Westminster Medical School has contradicted the report that the Council would arrange for female students to be received. A proposal of the kind was made, but declined by the Council of the School.

AT Durham University College of Medicine and Physical Science a Chair of Biology is to be instituted in conjunction with Physiology. Salary to be £450 per annum, supplemented by a part of the fees. The duties of the Professor will begin next October.

THE income tax has been discussed in Parliament, but there is at present little hope that the odious impost will be abolished. Professional men find it peculiarly oppressive, and they, in this respect, lost much when Mr. Gladstone's proposal was not accepted by the country.

SLAVERY has again been brought up in reference to the Gold Coast, but Mr. Disraeli is not prepared for immediate emancipation, which he thought "would be an act of violence." This from the Premier in Great Britain! Shade of Wilberforce forgive. A million would suffice for compensation now. Five may not suffice in as many years.

MISS JEX-BLAKE has only herself to thank for the public declaration of her examiners that they "unanimously agreed that the answers were extremely defective on every subject." Such a letter would never have been sent to the *Times* had not Miss Jex-Blake first written one casting such serious imputations on the examiners that for the sake of their own honour and that of the University they were driven to resort to such a course, and that we believe for the first time in the history of the University of Edinburgh.

THE Council of Owen's College, Manchester, announce their intention of appointing previous to the commencement of the next winter session, a Professor of Anatomy in connection with the Medical Department of the College (with which is now incorporated the Manchester Royal School of Medicine, founded in 1824), and the Council guarantee for a certain term that the emoluments shall not be less than £500 per annum.

THE Pharmaceutical Society of England has not only challenged the accuracy of the latest additions and emendations in the British Pharmacopœia, but seems to consider, and, we think, with good reason, that it ought to be consulted in the compilation of so important a national work. The Council of the Society has accordingly resolved—

"That this Council respectfully urges upon the General Medical Council the desirability of associating more practical pharmacists with any committee which may be appointed for the purpose of preparing any future edition of the British Pharmacopœia, or any further addendum to the present issue. This Council would be prepared to nominate such pharmacists in the event of the Medical Council agreeing to their proposal."

"That a copy of the resolution just agreed to be forwarded to the General Medical Council with the respectful compliments of the Council of the Pharmaceutical Society."

Without entertaining or expressing the least want of confidence in the committee to whom the compilation of the Pharmacopœia was entrusted, we believe that the merits of the work as a practical standard of pharmacy would be enhanced if that committee were afforded the aid of the experience and research of some of the leading pharmacutists. We bear willing witness to the scientific treatment which their speciality receives at the hands of many members of the Pharmaceutical Society whose investigations and writings on chemistry and materia medica are in many instances quite up to the level of the best efforts of our own profession.

## Literature.

### CARPENTER'S MENTAL PHYSIOLOGY. (a)

THIS work is founded on the chapter on the "Functions of the Cerebrum" contained in the fourth edition of the author's "Human Physiology." In one sense it may be called an expansion of that chapter, and as pupils of Dr. Carpenter, we approach the work with unusual expectation. To say we are not disappointed might appear slight praise, perhaps, in the estimation of some, but as disciples of the author we could scarcely say anything more indicative of the highest standard of merit.

Dr. Carpenter unquestionably possesses the needful qualifications for such a task as he has imposed on himself, and his pupils and admirers in all parts of the world will be delighted to learn that he has accomplished it. The chapter on "Mental Physiology" in the early edition of his large volume, which formed our text-book, while as full as it well could be in that place, always left the

(a) "Principles of Mental Physiology, with their Applications to the Training and Discipline of the Mind and the Study of its Morbid Conditions." By Wm. B. Carpenter, M.D., LL.D., F.R.S., &c., pp. 787. London: H. S. King & Co. 1874.

impression that more would be acceptable, and now we have abundantly more—the full fruit of long research and patient thought.

The book is a complete repertory of facts, and these are all arranged with the utmost care. Illustrations meet us at every turn; but every one is in its place. The author evidently knew exactly the scope of his intentions when he sat down to give form to the work which had manifestly occupied his mind for years. There is thus a completeness about the treatise which is rare in these days of hasty book-making. With the subject always more or less on his mind, we can imagine the author, as opportunity offered, thinking over its various parts and digesting the mass of information he could bring to bear on each, until, every one being perfected, he had but to sit down and combine them into one, just as a great architect, intent on planning such a building as should worthily serve for the temple of justice we are promised some day to have, would not begin to sketch his plan until he had fully grasped in his own mind the shape and size of every chamber required and the other details essential to the design. But once having familiarised his mind with all the essentials of his building, he would then so arrange as to include all, utilising every available space and wasting none.

Dr. Carpenter, in finishing his long labour, that is, in giving form and consistency to his multifarious materials, has thrown over his work an extra charm, for he has clothed the whole in a captivating style that might make the success of a novelist. We cannot better illustrate the interest of both matter and manner than by revealing the fact that we have not yet been able to finish reading the work, because a couple of youngsters of the household have found out its charms and claimed leave in holiday time to read "that jolly book."

#### MEDICAL JURISPRUDENCE. (a)

MEDICAL JURISPRUDENCE, as a science, has of late years made such vast strides that works thereon, which were originally suitable as "text-books," have, in successive editions, assumed such proportions, that they now more resemble encyclopædic works of reference. The busy practitioner can ill spare the time to labour through a voluminous chapter relative to a case on which he may be called to give evidence, and still less can the student, already overburdened with reading, devote his time to the perusal of these ponderous volumes. It is to be regretted that jurisprudence is not cultivated by medical men more extensively than it is, and that in our schools it is not taught more thoroughly. It is only as a witness in a medico-legal case that the medical man comes prominently before the public, and, certainly, in some instances, the honour of the profession has been imperilled by the incompetency of the witness.

The publication of Dr. Husband's little book will, we believe, further the study of forensic medicine by students. The arrangement of the matter is simple, concise, and accurate, and with this book within their reach students should now have no excuse for neglecting one of the most important branches of their professional education. We cannot go the length of saying that the book is faultless, for we have detected errors both of omission and commission, for instance, we find no mention of oil of turpentine as an antidote to poisoning by phosphorus—a most successful mode of treatment, originated by Andant. On the whole, however, the faults are few and trivial, and we anticipate for the work a hearty welcome both by students and practitioners.

W. H. G.

(a) "The Students' Handbook of Forensic Medicine and Medical Police." By H. Aubrey Husband, M.B., M.Ch., &c.

## Correspondence.

### THE PATHOLOGY OF THE ARTERIES IN BRIGHT'S DISEASE.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—Dr. Milner Fothergill takes exception to certain statements in my last lecture on Bright's disease, which appeared in your columns. I think he has signally failed to convict me of inaccurate statements, as your readers may judge for themselves.

I properly alleged that thickening, or *hypertrophy* of the blood-vessels, was described by Rayer, Bright, and succeeding writers. This is not disputed; but Dr. Fothergill claims for Dr. Johnson the "discovery" of hypertrophy of the muscular walls of the arterioles!

As it is not apparent from the writings of the authors referred to that their statements related to lardaceous degeneration, will Dr. Fothergill kindly enlighten both myself and your readers as to what portion of the vascular structure which I have translated thickening, or what might with equal propriety be termed hypertrophy, it has reference?

The "next inaccuracy," which Dr. Milner Fothergill is pleased to term "a curious mis-statement," had better be quoted entirely, and not in the partial manner in which my critic has seen fit to do:—

"Dr. Johnson has ascribed the hypertrophy of the left ventricle to obstruction to the renal circulation, the heart thus acting against an obstacle and enlarging in consequence—what has been called a stop-cock action; but the explanation seems to me to carry its own refutation on the face of it."

I contend, Dr. Fothergill's opinion notwithstanding, that this is correctly expressed, and that if language has any significance, I have not misinterpreted Dr. Johnson's views, though possibly my own meaning, in the last portion of the clause, might have been more fully expressed. I apprehend, as most others do, I believe, that Dr. Johnson's contention is that the abnormal condition of the blood causes spasm of the minute arterioles of the kidney, obstruction to the flow of blood, increased vascular tension, and consequent hypertrophy of the muscular tissue of the arteries, and of the left ventricle of the heart. If this be so, as Dr. Fothergill himself states, wherein consists my "curious mis-statement?" My idea is, admitting and believing as I do that the altered condition of the blood occasions arterial tension, that this is *not* peculiar to the kidney, but *affects the entire vascular system*.

But the belief that there is simply spasm of the renal arterioles and consequent hypertrophy of the left ventricle, is no less an hypothesis than is Dr. Fothergill's manner of manipulating the theory amusing.

After referring to Traube's views, for what reason I fail to see, Dr. Fothergill remarks: "He (Traube) now holds that the obstruction caused by the hypertrophy of the muscular walls of the systemic arterioles is the chief factor (in the production of the hypertrophy of the left ventricle), the view always held by Dr. Johnson."

Here the pathological sequence is *exactly reversed*. As I understand Dr. Johnson's views, it is the tension and obstruction which cause the hypertrophy, not the hypertrophy the obstruction.

I rather fear that Dr. Johnson cannot be congratulated on Dr. Milner Fothergill's defence of his opinions, and my "curious mis-statements" must have more foundation in fact, if, hereafter, I am to take the trouble of noticing them as I now do.

I am, faithfully yours,

CAMPBELL BLACK, M.D.

Glasgow, July 2, 1874.

### DUGONG OIL.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—The difficulty of obtaining this oil at a reasonable price is now overcome. I am happy to tell you and my medical brethren that Messrs. Bell, chemists, 338 Oxford Street, can supply it at a price within the reach of all. The value of the oil in the treatment of phthisis pulmonalis is fully acknowledged by every physician who has prescribed it on my recom-

mentation for years past. The paucity of supply and high price has hitherto prevented publicity being given to this most valuable remedy for various diseases depending on constitutional debility. One important fact regarding the dugong oil I beg to recall to the memory of the profession is—the oil is not nauseous, never repeats on the stomach, keeps good for years, and can be taken by the most delicate, rapidly increasing the weight of persons labouring under wasting disease, and in cases of decline or scrofula a healthy aspect of countenance is quickly assumed. Any further information for members of the profession required of me will be readily answered by

Your obedient servant,

J. McGRIGOR CROFT,

M.D., M.R.C.P. Lond.  
Mandarin Hall,  
15 Abbey Road, St. John's Wood, N.W.

### CONVERSAZIONE AT THE ROYAL COLLEGE OF PHYSICIANS OF LONDON.

THE conversazione given on Wednesday evening last by the President and Fellows was very numerously attended by nearly all the leading members of the profession, as well as by a number of distinguished visitors, among whom we noticed the Earl of Harrowby, Sir Philip Grey Egerton, M.P., Sir Thomas Watson, Bart., the Right Hon. Peter Erle, Mr. W. Forsyth, Q.C., M.P., Mr. Montagu Chambers, Mr. Spencer Walpole, Mr. F. B. Curling, F.R.S. (President of the Royal College of Surgeons), the Master of the Goldsmiths' Company, W. Bowman, F.R.S., and many others. The visitors on arrival were presented to the President, Sir George Burrows, Bart., M.D., and then passed on to the various apartments, in which were placed a large collection of objects of interest for inspection, which included specimens of art pottery from Messrs. Minton's, a drawing of Leicester Square as it is, and many valuable oil paintings, lent by Mr. Albert Grant, a large collection of photographs lent by Fradelle and Marshall, the London Stereoscopic Company, and Barraud and Ferrard, microscopes of all kinds, and anatomical objects from all the leading makers, *cum multis aliis*. The cynosure of the evening, however, was a cast of the left humerus of Dr. Livingstone, showing the false joint consequent on the bite of a lion, whereby the body was identified by Sir William Fergusson. The visitors began to arrive at nine, and did not disperse until a late hour.

### SHORT SIGHT AND COMPULSORY EDUCATION.

LORD MONTEAGLE interpellated the Duke of Richmond last week as to whether his attention had been called to the effect of school life in developing short sight, and whether anything could be done to avert the evil. He stated that short sight was very likely to be developed by study in schools unless precautions were taken to prevent such a result. Statistics on this subject showed that of 10,000 children examined, 1,004, or 10 per cent., were short-sighted; and of that number only ten had inherited the defect or acquired it from disease. But with the stimulus which had now been given to education, and the prospect of compulsory attendance, there was danger that the evil would spread. He hoped the Education Department would encourage the use of improved furniture in schools to prevent straining of the eyes of the scholars.

The Duke of Richmond, said if the noble lord would communicate to the department the information he possessed on this subject it should be carefully read, and the desks which he suggested as of a better construction than those

in use should be inspected, if they were placed in the Education Department at South Kensington; but at the same time he must point out that it would be rather late in the day, when the country had been supplied with schools, in which had been placed these forms and desks which the noble lord said were improperly made, to insist upon their changing all their furniture.

Lord Monteaale is certainly justified in his anticipation that myopia will increase *pari passu* with universality of education, and it would be quite possible to mitigate the extent of this result by the use of well-adapted desks in well-lighted school-rooms. We do not, however, at all believe that short-sightedness is usually the effect of errors of position of the student, and we doubt that it is in the power of the educational authorities to influence materially the prevalence of that fault of accommodation. Myopia, where it is not congenital, is in fact one of the penalties of excessive use of the eyes by delicate, half-nourished persons, and its occurrence in a certain percentage of instances is quite inevitable.

It may be true that an insignificant degree of short-sightedness can be detected in as many as ten per cent. of all children examined, but we do not believe that it exists to a noticeable or inconvenient extent in one-fifth of that number, and, therefore, although we would not discourage the adoption of all possible precautions against its occurrence, we believe that the alarm sounded by Lord Monteaale is delusive.

### THE SILENT SISTER.

It would seem that the reproach of being either less active in research or less disposed to communicate to others the result of their labours, which is frequently cast upon Irishmen, is not without good foundation, for the fact is observed upon in the *Bookseller* of this month.

Referring to a recently published list of works, which includes no less than 114 catalogues and extends to 3,200 pages, the editor says:—

"In looking through the volume one is struck by the conspicuous absence of activity on the part of publishers in one part of the British dominions—Ireland. One solitary catalogue of eight pages representing Dublin, and one page from Belfast, are all that Ireland contributes; while from Scotland, and Scottish publishers in London, the lists are very considerable."

Editors and reviewers are profoundly conscious that a multitude of works which go to swell the list of London publications would be better unwritten, as they are unread. Nevertheless, a treatment such as the above is deplorably illustrative of the want of enterprise of Irish publishers, or the aridity of the literary soil of Ireland.

Irish medical books are usually good books, and our regret is therefore greater that so small inducements are held out to authors by Irish publishers, and that medical publishers find so little response from the constituency with whom they have to deal.

### Medical News.

University of Durham.—At a convocation held on June 23rd the following degrees and licences in medicine were conferred, after examination, at the Newcastle College of Medicine on June 15th, 16th, 17th, and 18th:—M.D.: George Rowell, M.B., M.R.C.S. M.B.: W. T. Wilson, Licentiate



in Medicine. M.R.C.S.; Ralph Young, Licentiate in Medicine, M.R.C.S. *Licences in Medicine*: Andrew Arnold; Charles W. Wilson.

**Small-pox Patients on Railways.**—At the meeting of the Metropolitan Asylum Board on Saturday, Dr. Brewer presiding, a letter was read from the Local Government Board as to the case of the girl Fox, who was sent from Hastings to London, and thence on to Willesden by railway, suffering from small-pox, to which their attention had been called by the managers with a view to their prosecuting the parties who had sent her, stating that they did not see that the law had been infringed by any person but Mary Fox herself. This communication was considered most unsatisfactory, and a resolution was adopted to write again to the Local Government Board, and state "that it is the opinion of the managers the case of Mary Fox is of such importance as to require in the interest of the public further investigation." We quite approve of this resolution.

## Gleanings.

### Cases of Grave Disease Caused by the Swallowing of Foreign Bodies.

BY DR. RAYSS.

I.—A BOY, *æt.* 5, swallowed, in Feb., 1841, while playing, a silver coin of the size of a quarter of a dollar. Neither emetics nor purgatives brought the money to light. But the boy lost his temper, and became lazy and morose. He did not cough or complain of pain. In October of the same year, after dinner, he went to sleep; suddenly he vomited, and the coin rolled along the ground, bright and light. After this the boy gradually recovered.

II.—A school-teacher, *æt.* 33, asked, on account of phthisis, for advice in the summer of 1842. He had in vain consulted several physicians, had become thinner and thinner, and coughed constantly. His expectorations were of a yellowish-green colour, and of a very bad odour. His lungs contained slime, his epigastric region was painful, and his stomach could bear only liquids. He mentioned that his sufferings had commenced, in his opinion, about two years previous. He swallowed by accident, while taking his dinner, a rind of pork. Considering his stomach as the cause of his sufferings, the doctor ordered an emetic. A roll, as long as a finger, and enveloped in mucus, was vomited, and proved by closer examination to be a piece of rind. A few days afterwards his appetite became better, cough, expectoration, and pain in the epigastric region ceased, and he became vigorous again.

III.—In October, 1857, the doctor was called to a man who suffered for a considerable time from fever and cough, and expectorated very bad-smelling matter. His lungs were filled with slime, the epigastric region was swollen and painful, and the tongue thickly coated and yellow. While eating, September, 1856, he had swallowed a hard body, and felt pain in the throat and back afterwards. An emetic was ordered. He vomited mucus and bile. After this the state of his health improved so far that he could pursue his business a fortnight afterwards. He then travelled on foot for several hours, felt unwell, with pain in his chest, and vomited at last a rough bone, one inch long, and of a very bad smell. Since then he has recovered entirely from his cough, his strength has increased, and he is quite well now.

Had the related cases terminated fatally, the pathologist would not, at least in the two last cases, have considered the roll of rind or the piece of bone as the cause of death. And yet to these was due the impaired health, as after their removal health became restored.—*Virchow's Archiv., Detroit Review.*

### Formation of True Bone in Penis.

BY DR. J. VON LENHOSSEK, Pest.

THE occurrence of *true ossification* in the penis has not been proved till now; the doctor's case is, therefore, very interesting, the more so, as not simple bony plates, but a larger piece of bone, besides a cartilaginous body, were found post mortem in a corpse, of which he only learned that the individual died from typhus, at 42. Both the car-

tilaginous and the bony formations were situated in the cavernous bodies. There was a dorsal bone, with a channel for the dorsal vessels, and three ventral bones, with channel for the urethra. They originated from the middle fibrous septum of the cavernous bodies; their colour was yellowish. The microscopic examination revealed three different layers in the bony substance. The external layer consisted of connective tissue and some elastic fibres; the middle layer was composed of the same elements, containing spindle-shaped cells; the inner layer was characterised by the *Haversian canals*, about which were grouped, in concentric lines, the bony canals, connecting with the larger cavities of the bone. The cartilaginous body originated, likewise, from the middle septum, had a white colour, and consisted of connective tissue and many elastic fibres. As the place of the erectile tissue was partly taken by the new formations, erections, of course, were very much interfered with. At last, the doctor states, that Prof. von Siegmund observed bony bodies in the penis, but only in life. In nearly all these cases the patients were, or had been, syphilitic. The seat of these formations was also the cavernous bodies of the penis. The professor considered them as complete ossifications of the lymph vessels.—*Virchow's Archiv., Detroit Review.*

### THE MEDICAL COUNCIL.

WE understand that at the meeting of the Council, to be held to-morrow, several questions affecting the *status* of certain members of the profession and of professional etiquette will be brought forward, and the Report on Professional Education further considered.

Notices of motion have been given for the appointment of a committee to prepare a new edition of the British Pharmacopœia, for the discontinuance of the publication of lists of registered medical students, and a draft of a proposed Bill prepared by Sir Dominic Corrigan, to amend the Medical Act of 1858, will be brought forward for consideration.

### NOTICES TO CORRESPONDENTS.

#### SPECIAL NOTICE.

THE Publisher will be glad to receive arrears of subscription for last and previous years. He regrets to state that there are still several gentlemen against whose names there are as many as four and five years' arrears standing, and who have had repeated applications for payment by letter made to them without any response. He thinks such should not be the case in an honourable profession.

#### CARMICHAEL PRIZES.

To the Editor of the MEDICAL PRESS AND CIRCULAR.

SIR,—Can you or any of your readers tell us why the Carmichael Prizes awarded to Drs. Ash and Dale have not been published and circulated as directed by the will of the late Mr. Carmichael?—"700 of the prize essays to be published and sent to all Cabinet Ministers and Privy Councillors in both countries, and to all councillors and governing members of all medical colleges and corporations." Surely, Sir, at this important crisis in medical politics the omission of such an enactment is highly culpable!

Yours obligingly,

EDWARDS CRISP, M.D.

29 Beaufort Street, Chelsea.  
July 2nd, 1874.

[The publication of the essays has been ordered by the Council of the Royal College of Surgeons in Ireland long since, and the delay is with the printer. We are informed that the essays will appear shortly.—Ed.]

DR. CAMPBELL BLACK's corrected proof of lecture on "Bright's Disease" did not arrive until Tuesday, when we were at press. It is therefore left over for our next.

ERRATUM.—The heading of Dr. Austin's letter of last week should have been "Estimation of Total Nitrogen in Urine," not in Urea, as erroneously stated.

MR. L. C. VENABLE is thanked.

MR. G. G.—If possible in our next.

DR. H. A. BROWN should write to the publishers.

HARLEY STREET.—We understand that the poor fellow is now in an asylum.

H. E. R.—The estimate formed of your neighbour from his recent actions is probably not far wrong. We advise you to restrain your just anger; he will poison himself with the alime from his own tongue some day.

**HOSPITAL CASES.**—Every surgeon of a hospital knows too well to what inconceivable meanness people will stoop to obtain medical advice for nothing. There might be some excuse in the prevalent opinion that the most eminent men are selected to see patients at special and other institutions; but the same practitioners can be consulted at their own homes—and, as a matter of fact, the well-to-do impostors who obtain gratuitous relief are not grateful enough even to send a donation to the institution. Shall I ever forget meeting, at an assembly at the Mansion House, the wife and daughters of an alderman, who had come to me disguised in shabby apparel to seek advice at a hospital where I had recently been appointed surgeon!—From *Cassell's Magazine* for July.

**DR. J. L.**—Decidedly a breach of professional etiquette, for which an apology is due to you. You may communicate our opinions to the gentleman concerned.

**DR. WILLIAMS.**—The Harveian oration by Dr. West at the Royal College of Physicians can be had in pamphlet form. It was delivered from notes, of which a printed and bound copy was sent us not many hours afterwards.

**BIOLOGY.**—A professorship on this subject will be established in the University Colleges of Medicine and Physical Science, Newcastle-on-Tyne, in October next. The stipend offered to candidates for the appointment is £450, with part of the fees attaching thereto.

**MALVERN COLLEGE.**—In the list of successful candidates for the East India Civil Service, Mr. H. S. Barnes, who was at the head of the list distanced his next competitor by nearly 400 marks. We are requested to state that the gentleman who gained this distinction was educated at Malvern College.

**COMMUNICATIONS, Enclosures, &c.**, have been received from Dr. Edwards Crisp, Chelsea. Dr. McGrigor Croft, St. John's Wood. Dr. Chapman, London. Dr. Heywood Smith, London. Dr. H. W. Williams, Fulham. Dr. F. H. Hamilton, New York. Dr. Marsden, London. Dr. Milner Fothergill, London. Dr. Waring Curran, Mansfield. Mr. King, London. Dr. Newman, New York. Dr. W. Haynie, Batesville, America. Mr. Charles Lunn, Edgbaston. Mr. Custance, Hospital Sunday Fund. Dr. Esler, Belfast. Mr. Venables, Hampstead. Dr. Frotheroe Smith, London. Dr. West, London. Mr. Aston, Wadingham. Dr. Chalmers, Caistor. Dr. Drysdale, Liverpool. Dr. Campbell Black, Glasgow. Dr. Julius Althaus, London. Dr. Lopez, Madrid. H. E. R. Dr. J. L. Dr. Williams. Mr. E. Gallais, London. Dr. Brown, Boston. Dr. Wyse, Dublin. Mr. George Gaskoin, London. Dr. Meadowscroft, Great Bentley. Mr. Wilkins Williams, London. Dr. Brinton, Philadelphia. Dr. Feber, Malvern. Mr. W. Berry, Manchester. Mr. W. Johnson Smith, Greenwich. Mr. J. Needham, London Hospital. Surgeon-General Gordon, Aldershot. Dr. Morgan, Dublin. Dr. Ormsby, Dublin. Mr. George, Battralough. Mr. Rivington, London. Dr. Drysdale, London. Dr. Aquila Smith, Dublin. Mr. Kennedybell, Oxford. Mr. Geere, Brighton. Mr. May, London.

#### BOOKS, PAMPHLETS, AND MEDICAL JOURNALS RECEIVED.

A Treatise on Pharmacy, designed as a Text-Book for Students and as a Guide for Students. Fourth Edition. By Edward Parish, M.D. London: Baillière, Tindall, and Cox.

Dr. Pereira's Elements of Materia Medica and Therapeutics. Edited by Messrs. Bentley and Redwood. London: Longmans, Green, and Co. On Diseases of the Heart. By T. Shapter, M.D. London: J. and A. Churchill.

On the Genito-Urinary Organs, including Syphilis. By W. H. Van Buren. London: J. and A. Churchill.

Hints on Ophthalmic Out-patient Practice. By C. Higgins, M.R.C.S. The Muscles of the Human Body. By Messrs. Manning and Elliott. London: H. K. Lewis.

Braithwaite's Retrospect of Medicine. Vol. LXIX. London: Simpkin, Marshall, and Co.

The Harveian Oration for 1874. By C. West, M.D. London: Longmans.

Report of the Autopsy of the Siamese Twins. Philadelphia: Lipincott and Co.

Thomson's Conspectus. Edited by Dr. Birkett. Longmans and Co. Suggestions and Reasons for Improving the Medical Branch of the Navy.

Report on the Sanitary Condition of Birkenhead. By Francis Vacher. Canada Lancet. Boston Medical Journal. Canada Medical Journal. Journal Thérapeutique. Courrier Médical. Le Progrès Médical. Hardwicke's Science Gossip. Monthly Microscopical Journal. The Obstetrical Journal of Great Britain. The Journal of Mental Science. Philadelphia Medical Reporter. La France Médicale, &c., &c.

#### VACANCIES.

Westminster Hospital. House Surgeon, without salary. Particulars of the Secretary at the Hospital.

King's College, London. The Chairs of Materia Medica and of Comparative Anatomy.

King's College Hospital. Physician, Honorary.

Owen's College, Manchester. Professorship of Anatomy. Emoluments from stipend and fees, guaranteed not to be less than £500 per annum. Full particulars on application to Dr. Greenwood.

Stockport Infirmary. House Surgeon. Salary, £60 per annum, with board and apartments. Address the Hon. Sec.

West Norfolk and Lynn Hospital. House Surgeon and Secretary. Salary, £80 per annum, with board, lodging, and washing. Testimonials, &c., to be sent to the Weekly Board, King's Lynn.

Rochdale Infirmary. House Surgeon. Salary, £100, with board and residence. Applications to Mr. E. M. Roys, Clover Cottage, Rochdale.

Kingston Union. Medical Officer for the new Radnor District. Salary, £80, with extra fees. Application to the Clerk before the 25th.

North Staffs. Infirmary. House Physician. Salary, £80 per annum, with board, &c. Address the Secretary, Hartshill, Stoke-on-Trent.

Burnley Union. Medical Officer of Health. Inclusive salary, £500 per annum. Address the Clerk to the Sanitary Authority, Burnley.

University of Durham. Professorship in Biology. Salary, £450, with a portion of fees. Candidates must apply to the Secretary of the College of Physical Sciences, Newcastle-on-Tyne.

Ceres, Fifeshire. Resident Medical Officer to the Board. Salary, £23, with fees extra. The appointment will also entitle the holder to be Medical Officer to the Adamson Institution with a salary of £43 per annum. Applicants must address—The Inspector.

Hartlepool Hospital. House Surgeon. Salary commencing at £80 per annum, with board and residence. Address the Secretary.

Northampton Infirmary. House Surgeon. Salary, £125 per annum, with board and lodging. Applications to the Secretary.

Northampton Infirmary. Assistant House Surgeon. Salary, £80, with board and lodging. Address the Secretary.

Bristol General Hospital. Physician, Honorary.

#### APPOINTMENTS.

BADDOCK, L. C., M.D., M.R.C.S.E., Public Vaccinator for the Central District of the Parish of Brighton.

BROWN, Mr. G. B., a Demonstrator of Anatomy at University College.

CROLY, R., L.K.Q.C.P.I., L.R.C.S.I., Medical Attendant to the Royal Irish Constabulary, Crossakiel and Kno ckrath.

GLANVILLE, J., M.R.C.S.E., House Surgeon to the Seamen's Hospital, Greenwich.

GRAYSON, F. D., M.R.C.S.E., Medical Officer for the Hadleigh District of the Rochford Union.

KINGSLEY, G. T. B., L.R.C.P.Ed., L.F.P. & S. Glas., Medical Attendant to the Royal Irish Constabulary, Borrisokane, co. Tipperary.

KNIGHT, C. F., M.R.C.S.E., Medical Officer to the Farringdon Road Workhouse of the Holborn Union.

MOORE, J., M.R.C.S.E., Medical Officer for the Eastern District of the Parish of Brighton.

OATES, J. P., M.R.C.S.E., Medical Officer for the Tanworth No 1 District of the Solihull Union, Warwickshire.

OWEN, R. E., M.R.C.S.E., Medical Officer of Health for the Beaumaris Urban Sanitary District.

PHILPOT, C. W., M.D., Certifying Factory Surgeon at Croydon.

PILKINGTON, H. O., M.R.C.S.E., Medical Officer of Health for the Preston Urban Sanitary District.

RAKE, B., M.R.C.S.E., Medical Officer and Medical Officer of Health to the No. 2 District of the Fording Bridge Union.

ROSS, J. H., M.D., M.R.C.S.E., Public Vaccinator for the Eastern District of the Parish of Brighton.

SHAPLEY, Mr. H. T., Junior Resident Medical Officer to the London Hospital.

THOMPSON, J., M.D., Medical Officer for No. 5 District of the Barnstable Union.

TURNER, W. M., M.R.C.S.E., Assistant Medical Officer to the Staffordshire Lunatic Asylum, Stafford.

WALLACE, A., M.D., Certifying Factory Surgeon at Turfiff, Aberdeen-shire.

WELBY, W. M. H., M.R.C.S.E., Assistant Visiting Surgeon for Shorncliffe, under the Contagious Diseases Acts (Women).

#### Birth.

GRAIFFITHS.—On the 1st inst., at 2 Sydenham Road, Dundrum, Dublin, the wife of Dr. Handel Griffiths, of a son.

#### Marriages.

DURANT—TOWNSHEND.—On the 2nd inst., at St. Marylebone Church, London, Edmund Durant, M.R.C.S.Eng., to Mary Ann Ada Absolom, eldest daughter of the late Lionel Townshend, M.D., of Attleborough, Norfolk.

#### Deaths.

BAKER.—On the 28th June, Thomas John Baker, Esq., M.R.C.S., of Junction Road, Highgate Hill, aged 68.

BROXHOLM.—On the 22nd June, J. Horton Broxholm, M.D., of Sunbury, aged 48.

DOUGLAS.—On the 25th June, Arch. Douglas, M.D., of Clifton Place, Hyde Park, formerly of Edinburgh, aged 57.

FLETCHER.—On the 27th June, Wm. B. Fletcher, Surgeon, of Rainford, Lancashire.

M'NICOL.—On the 22nd June, John Clark M'Nicol, M.D., of Clayton-le-Moors, Lancashire, aged 29.

O'CONNOR.—On the 19th June, T. J. H. O'Connor, L.R.C.P.Ed., of Heyworth Street, Everton, Liverpool, aged 34.

PEDGRIFT.—On the 22nd June, Robert Pedgrift, L.S.A.L., of Laddon, Norfolk, aged 78.

SCOT.—On the 25th June, at Laurencekirk, Thos. Goldie Scot, M.D., Deputy Inspector-General of Hospitals.

SMIRTHWAITE.—On the 19th June, Geo. Smirthwaite, M.R.C.S.E., of Coal-Clough, Burnley, aged 55.

**WANTED.**—A GENTLEMAN is desirous of DISPEN-SARY DUTY in any part of IRELAND for a few months. He is a Licentiate of the King and Queen's College of Physicians, and of the Royal College of Surgeons in Ireland.—Address C. W., office of this Journal, 23 Ely Place, Dublin.

**OWEN'S COLLEGE, MANCHESTER.**—PROFESSORSHIP of ANATOMY.—The Council propose to make an appointment previous to the commencement of the next Winter Session of a PROFESSOR of ANATOMY in connection with the Medical Department of the College (with which is now incorporated the Manchester Royal School of Medicine, founded in 1824), and they invite gentlemen willing to become candidates to send in applications and testimonials addressed to the Council, under cover to the Registrar not later than Saturday, the 1st August next. The emoluments of the office will be derived from a stipend and a share of students' fees, and the Council will guarantee for a certain term that these together shall not be less than £500 per annum.

Further information will be given on application to J. G. Greenwood, LL.D., Principal of the College.  
23rd June, 1874. J. HOLME NICHOLSON, Registrar.

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**ARCHIBALD HAMILTON JACOB, M.D. Dub., F.R.C.S.,** Ex-Ophthalmic and Aural Surgeon to the City of Dublin Hospital.

Consulting Physician:  
**EVORY KENNEDY, M.D. (Hon. Caus.), T.C.D. and Edin.,** Fellow and Ex-President King and Queen's College of Physicians.

Consulting Surgeon:  
**GEORGE H. PORTER, F.R.C.S.I., M.Ch. T.C.D. (Hon. Caus.),** Surgeon in Ordinary to Her Majesty the Queen in Ireland; Fellow and Ex-President, R.C.S.I.; Senior Surgeon to the Meath Hospital.

Obstetric Physician:  
**JOHN CRONYN, M.D., F.R.C.S.,** Examiner in Midwifery, Roy. Col. Surgeons; Ex-Assistant Physician Rotunda Hospital.

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Annual number of Dispensary patients	...	...	729
Number of visits paid by such patients	...	...	5,847
Number of patients within the Infirmary	...	...	124
Number of operations performed	...	...	163
Total gross expenditure per bed per annum	...	£37	15 0
Average expenditure per intern patient	...	1	10 6

The Infirmary is wholly dependent on private benefactions, and is in debt to the Medical Officer. SUBSCRIPTIONS ARE EARNESTLY REQUESTED

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# The Medical Press & Circular.

"SALUS POPULI SUPREMA LEX."

WEDNESDAY, JULY 15, 1874.

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## Original Communications.

### NOTE ON THE HYGIENE OF PARIS BESIEGED.

By Surgeon-General C. A. GORDON, M.D., C.B.

LET us hope that never shall we need the lessons in regard to the Hygiene of Paris Besieged to be applied under similar circumstances to a city in which British troops are placed. Nevertheless, as hopes and facts are unhappily on occasions at variance, I may briefly allude to some of the measures taken during the investment of the French capital in 1870-71. The measures resolve themselves into those connected with personal hygiene and those of public hygiene. The first had reference more especially to the troops of different kinds engaged in the defence. It was pointed out to them that of 100 deaths they must expect 75 to be by disease, and that therefore their first object was to guard against illness. First among the instructions published was the inculcation of sobriety, its importance being unhappily early shown by the rapid increase of excesses. It was pointed out that indulgence in "drink" renders a person more liable than he would otherwise be to the effects of cold and exposure, besides leading him to commit indiscretions before the enemy which might lead to his being killed or wounded. Instructions were given in regard to the best means of preparing food at the outposts and on the ramparts. A system was inaugurated to ensure personal cleanliness; nor was it by any means unnecessary: special provisions were made to supply the men with clothing and articles of bedding, but the circumstances of the siege did not admit of either being complete. Huts were erected in the more spacious thoroughfares and near the ramparts for their accommodation; some men were billeted in hotels and private houses, and public buildings were converted into temporary barracks. Canteens were established at convenient points, and steps taken as far as possible to supply the troops with hot meals before going upon and after coming off guard. The encouragement given in the French army to singing and dancing, although in accord with the genius and tastes of the people, would seem strange to us. Both were at a discount throughout the siege, except, indeed, that in the absence of instrumental music some of the newly-raised regiments marched out to battle singing as they marched the "Marseillaise" and "Mourir pour la Patrie."

With regard to public hygiene, the Central Committee of Salubrity at once co-operated with the Intendence, with a view to make such arrangements as could be carried out without the aid of medical officers, for, strange as the circumstance must appear, they were in many instances not consulted at all, and when they were, their views not necessarily accepted. The four great effects of a siege were early anticipated, and prepared for as far as circumstances permitted. These were battle, fire, famine, and disease. To the success of arrangements thus early made must be assigned the fact of absolute famine having been postponed for more than a hundred days, and disease having been limited to a rate of only five times greater than what it is under normal conditions. Measures were taken to provide accommodation, food, and other requirements for the many families from the outskirts of the city who crowded into it, and for the reception of the sick and wounded, who, it was felt, would come in great numbers. In respect to the latter, it must be said that tents and huts were erected, public and private buildings utilised for the time being, but unfortunately, sanitary requirements not in all cases fully attended to, so that, more especially in the wounded, mortality ran high from hospital diseases. After a time the very dead became a source of danger to the living, those who had perished by wounds and their effects exhaled alike in their latter hours and in their death emanations that even the use of disinfectants could scarcely overcome. Thus a special arrangement for their speedy interment became a matter of great public importance. As far as possible it was arranged that regiments should take their tours of duty on the advanced posts, and on the ramparts every third day, but this was liable to frequent disturbance by reason of collisions and more important actions with the enemy. It will be remembered that one of the earliest measures taken was to get rid of the *bouches inutiles* as far as that could be effected. In doing so a number of foci of disease were also disposed of, with the somewhat strange result that after the dearth of fuel and oil had caused the public thoroughfares to be in darkness after an early hour in the evening, those whose duty it was to traverse the city were able to do so almost without molestation. The resources of the public service being altogether inadequate to meet the requirements; the co-operation of the medical profession and public at large was solicited for services connected with hospitals and ambulances, and to the credit of all, it must be said that they most freely, fully, and effectually responded to the call. Organisations of various kinds by societies under the Red

Cross of Geneva were formed; help in money, material, and in personal service were freely given, and by none more freely than by the ladies, whether of sisterhoods or "of the world." At a later period much of the transport of the wounded from the field of battle, as also their subsequent accommodation and treatment, was carried out by such organisations. Employment was given to every one who desired or could be induced to take it, whether belonging or not to the regular army or national guard. The troops needed clothing and shoes, the streets, rivers, canals, and houses had to be maintained in a state of cleanliness, nuisances had to be burnt for want of means of removal, defences thrown up, preparations made to decrease, as far as possible, the risks of fires in public and in private buildings, thus affording to all means of labour and remuneration. Under the Supreme Council of Salubrity, sub-committees, each with its organisation, were appointed to superintend respectively food, water, conservancy, and house accommodation. By this systematic division of labour much was effected to avert disease which otherwise would have been inevitable, and to serve as an example in the case of any other city unhappily placed under similar circumstances. Specific rules were laid down in regard to cleansing and disinfecting wards or apartments in which persons wounded or suffering from disease had been accommodated; and with reference thereto I may observe that, as a rule, the results of artificial disinfection were by no means encouraging, inasmuch as hospital disease having once occurred in a building, disinfection and cleansing, however carefully performed, failed to eradicate it. The only sure plan of effecting this was to abandon the building. It soon was discovered that irregularities of various kinds were taking place at the *abattoirs*, and that substances were being sold for food which were in reality unwholesome. The committee charged with the supervision of such matters directed their attention to them; the former were brought under very strict supervision: the animals, whether chevaline or bovine, intended for slaughter were carefully inspected; such as were at a later period established as "*boucheries des chiens, des chats, et des rats*," were similarly supervised, and all dépôts of food strictly inspected. At all times throughout the siege a ration of wine was issued for every *moult* in Paris; canteens were established at which the very poor received daily their allowance of food at the expense of the municipality, thus for the time being placing them upon a better footing than the better classes; and the result of the arrangement was that when our famine was at its height, famine fever was non-existent among us. This fact has since the siege been commented upon, as indeed it deserves to be, by various writers, the conclusion very naturally arrived at being that the freedom from such disease enjoyed by the besieged arose in an important degree, if not altogether, from the fact of wine being regularly issued to them. Another measure which cannot be passed over was the cultivation of every available space of ground for salads and vegetables, so that throughout the whole winter it was possible to obtain such antiscorbutics, although in small quantity, and not to altogether prevent a general taint from pervading the masses of the besieged.

In the early part of the investment, and before the besieging circle had yet closed tightly in around us, every thing in the shape of food that could be obtained from outside was collected in the interior, cattle, sheep, and horses were brought within the barriers; the two former were placed in pens along the Boulevards, and daily provided with rations of fodder, the rate at which the animals were subsequently killed being arranged with reference to the means of supplying them with appropriate food; the horses were as long as possible used for purposes of draught. From time to time the quantities issued as rations were decreased, until, when capitulation took place, the sole food daily allowed to an adult was 10½ ounces of coarse bread and a quarter of a litre of wine. Nor were the wounded much better provided for; deaths among them were fearfully numerous, and Paris itself was starved into capitulation.

## STUDENTS' COLUMN.

### LECTURES ON HUMAN ANATOMY.

By WALTER RIVINGTON, M.S. Lond., F.R.C.S. Eng.,  
Surgeon to the London Hospital and Lecturer on Anatomy at the  
London Hospital Medical College.

#### LECTURE X.

(Continued from page 12.)

THE breadth of the Sternum is not entirely a human character. Man shares this feature with the gorilla, chimpanzee, orang, and gibbon, in fact, with all the Anthropoid Apes. The lower monkeys have narrower Sterna, composed of pieces which continue separate throughout life. The unusually broad Sternum occasionally seen in man may be compared to the broad Sternum of the Siamang gibbon; the unusually narrow Sternum, with the Sternum of many of the lower Mammalia, including the dog and the kangaroo, now present in skeleton on the table. That earlier condition of the Sternum in man, in which it is composed of several segments united only by cartilage, is represented by the permanently segmented state of the Sternum in many orders of the Mammalia, the pieces being united either by fibrous tissue or separate synovial joints. The imperfect union of the Sternum in the middle line brings up the Sternum of the pig, which "very often retains indications of the primordial median fissure throughout life," (a) and the transitory cleft of the bone in the Struthious Birds.

The presence of the Manubrium without the rest of the bone, observed in man by Chaussier, (b) is a condition paralleled by the whale-bone whales, in whom the rest of the Sternum aborts, or is present only as a Xiphoid Process. In Birds the representative of the lower part of the Sternum or Xiphisternum is greatly developed. In the ostrich and cassowary it is simply expanded into a broad plate. In other birds it gives off in front a keel-like process, which affords attachment to the muscles which move the wings. A keel-like ridge is found in some Mammals, and has been mentioned as sometimes present in man. It is very rare.

The *Ribs* are long narrow curved bows of bone composed of two layers of compact tissue enclosing cancelli. In this respect they bear an analogy to what are called the *Flat Bones*. The *Ribs* are divided into 3 sets, according to their terminal connections. The upper 7 articulating behind with the Vertebrae, and ending in front in Cartilages which join the Sternum independently of each other, are called the *Vertebro-Sternal* or *True Ribs*. The three succeeding Ribs articulating behind with the Vertebrae, and ending in front in Cartilages which are joined to the Cartilages immediately above them, the 8th to the 7th, the 9th to the 8th, and the 10th to the 9th, are called *Vertebro-Costal*. The two last Ribs articulating behind with the Vertebrae, and ending in front in Cartilages which are "free and independent" are termed *Vertebral*, or *Floating Ribs*. The *Vertebro-Costal* and *Vertebral Ribs* are called collectively the *False Ribs*. All the Ribs have common characters more or less distinctly marked. They form segments, or arcs of circles, and have 2 *Surfaces*, 2 *Borders*, and 2 *Extremities*. The typical characters of these parts can be studied best on one of the central Ribs. Taking for instance the 5th or 6th Rib, and looking at the articulated skeleton, you will notice that it is jointed behind to two vertebrae and their intervening disk. From this point it slopes downwards and backwards to the transverse process of the lower Vertebra, and is united by a distinct articulation to its extremity; it continues a little further in the same direction, and then making a rather sudden bend, passes downwards and forwards in a gentler curve to its termination and junction with the Costal Cartilage, which runs upwards and inwards to articulate with the margin of the Sternum. Each part has a separate name. The expanded vertebral extremity is called the *Head*, the flattened part succeeding the Head and resting against the transverse process of the Vertebra is called the *Neck*, the enlargement at the outer end of the Neck, which joins the end of the transverse process, is the *Tubercle*; the remainder of the Rib is the *Body*, or *Shaft*, and the point where the Rib alters its direction, is marked on the outer surface by a line called the *Angle*.

The *Head* presents at its extremity two articular surfaces, or facets, separated by a ridge, which corresponds to the inter-

(a) Flower, op. cit., p. 77.

(b) Smith's Osteo., p. 210.

vertebral fibro-cartilage, and gives attachment to a ligament called the inter-articular ligament, separating the joint formed by the upper facet with the vertebra above from the joint formed by the lower facet with the vertebra below. The *inferior facet* is larger than the other, and has but a slight obliquity. The *superior facet* is cut with considerable obliquity, corresponding in this respect to the facet on the upper vertebra. Both facets are slightly concave, covered with cartilage, and form an angle with each other. The mode in which the *Head* is wedged in between two Vertebrae contributes greatly to the security and stability both of the Ribs and Vertebral Column. The more horizontal direction of the upper facet is designed to act as a stop and efficient bearing point for the Head of the Rib when pressed upwards in the respiratory act.

The *Neck* is not always constricted, as the name might lead you to suppose, but flat, and wider than the neighbouring part of the shaft. It is about an inch in length. Its *anterior surface* is smooth and concave; its *posterior surface* is rough, attaches a ligament at the lower part, and presents the orifices of canals running in divergent directions, which give passage to small vessels for the nourishment of the bone. The *superior border* is elevated into a crest, which attaches a ligament; the *inferior border* has two distinct margins, anterior and posterior. The *Neck* is designed as a means of junction between the Rib and the transverse process, and its peculiarities have reference to their correspondency and ligamentous connections. In front it supports the thick posterior border of the lungs.

The *Tubercle*, or *Tuberosity*, which is placed at the junction of the *Neck* and *Shaft*, consists of two parts, an inferior and internal, smooth, convex, and covered by cartilage for articulation with the concave facet on the extremity of the transverse process, and a superior and external rough portion, which attaches a ligament. The former is generally called the *articular* and the latter the *non-articular* portion (a). The *Tubercle* is an additional provision for securing the Rib to the transverse process whilst permitting the requisite movements between them.

The *Body* of the bone is convex on its *outer surface*, smooth, and marked by the prominent *angle* which runs obliquely downwards and outwards. Near the sternal end there is a feeble line, called the *Anterior Angle*. The *Internal Surface* is concave, and presents below its middle a *Ridge*, which begins at the *Head*, runs along the *Neck* and *Shaft*, gradually diminishing in prominence till it disappears near the anterior end. Between the ridge and the inferior border is a deep *Groove*, which commences opposite the *Tuberosity*, runs towards the anterior extremity, becomes more marked at the angle, and then gradually diminishes and disappears in the anterior third. In this groove are seen the orifices of canals for the blood-vessels which nourish the bone. They run with much regularity backwards towards the *Head*. It is stated by most anatomists (Ward, Quain, Gray, Holden, Ledwich, Harrison, South, &c.) that the *Groove* lodges the *Intercostal Vessels* and *Nerves*. Humphry speaks of the *Groove* as the "so-called *Groove* for the *Intercostal Artery*." Wilson flatly denies that the vessels ever run in the groove. This is certainly an error. The fact is that the intercostal arteries vary in the different spaces and in different subjects, extending outwards for an uncertain distance before seeking the shelter of the groove. Protection to the vessels appears to have been a *secondary* and not a *primary* object of the groove. The *Superior Border* of the Rib is thick and rounded. The *Inferior Border*, the segment of a larger circle than the superior, is thin and sharp. The *Anterior Extremity* presents a deeply concave cup for the reception of the tough cartilages, or "gristles," by which the Rib is continued to the Sternum.

The concavity and smoothness of the internal surface of the Rib have evident reference to its forming the boundary of the Thoracic Cavity, and its contact with the Pleura, or investing membrane of the lung. The thickness of its upper border is needed for the attachment of the 2 intercostal muscles, internal and external. The thinness of the inferior border is explained by the presence of the ridge on the inner surface, for the latter attaches the internal intercostal muscle, and the former the external. The groove represents the interval between the intercostal muscles, and protects the intercostal arteries. The angles strengthen the Ribs at a weak point, and are for the attachment of the tendinous fibres of muscles. To the posterior angle the tendons of the strong erector

muscle of the back are affixed. The interval between the angle and tuberosity is occupied by muscular fibres.

Placing the Rib on its lower edge on the table, you will find that the Posterior Extremity from the Angle to the Head is tilted upwards and forwards, forming with the anterior portion an obtuse angle, whose apex points downwards. It would appear as if, while the Rib was still in a soft cartilaginous condition, its anterior part had been turned forwards near the angle, and then curled over a little from without inwards. This is what is meant when the "twists" of the Ribs are mentioned in anatomical text-books.

Tracing next the outlines of these two portions on a slate, or on paper, or merely taking a "bird's eye view" of the Rib, you will perceive that at or near the angle is the point of junction of the segments of two circles of different sizes. The posterior part, which is more sharply curved, is the segment of a circle comparatively small; the anterior part, which has a more gradual curve, is the segment of a circle considerably larger.

Looking at the skeleton, you will see that the anterior extremity of the Rib is lower than the posterior; that the Rib slopes obliquely downwards from the vertebral attachment. All these three peculiarities have reference to the movements required for enlarging and diminishing in respiration the capacity of the chest.

Place one of the Central Ribs with its lower edge on the table, and its anterior end towards you. Raise the anterior end, keeping the opposite end in contact with the table, and you will observe that the Neck of the Bone is rotated on its axis, and that its anterior surface, which naturally looks slightly upwards, is turned still further in that direction. The inference is that when the anterior ends of the Ribs are raised, the posterior ends are rotated. Now keep the two ends on the table, and raise the middle portion of the Rib, rotating it on an axis drawn through the vertebral and sternal ends. In this motion the Head is nearly fixed, but the Neck is raised, especially at its outer end, where its articular facet is situated. These two movements are almost exactly the movements which take place in inspiration. The anterior ends of the Rib, which we have already seen are considerably lower than the posterior, are raised so as to bring them more nearly to a level with the posterior, and the central parts of the Rib, which lie below the level of a line drawn through their two extremities, are also raised, and these two changes must necessitate a rotation of the Neck of the Rib and an elevation of its outer end. This view is corroborated by the position of the ligaments, which is exactly such as to limit these movements, as well as by the disposition of the muscles, which is exactly such as to produce them. It is a universal law, that where there are joints which are capable of particular motions, there are muscles capable of producing the movements, and ligaments or some other provision for preventing these movements proceeding too far. There is always an exact relation between the joint, the muscles which move it, and the ligaments checking the movements.

Arranging the Ribs in order on the table you will observe some of their

#### DIFFERENTIAL CHARACTERS.

The Ribs are not mere repetitions of each other. Humphry well observes: "The twelve Ribs present a good illustration of that resemblance in general features and dissimilarity in details which pervade more or less the various parts of the skeleton, and which may indeed be observed throughout the whole physical world to constitute a general law of creation. They are alike in the plan of their construction, yet each one differs from the other in certain particulars." A good observer would readily distinguish any Rib that might be presented to him.

The *Length* of the Ribs increases from the 1st to the 6th or 7th, and diminishes from the 7th to the last. The 12th Rib is the shortest, the 1st Rib comes next in order of brevity, and then the 11th, which is shorter than the 2nd.

In *Breadth* the Ribs narrow in regular sequence to the last, the 1st Rib exceeding all the others. In degree of *curvature* the 1st Rib has the pre-eminence. The curves of the rest diminish to the 12th, which is scarcely curved at all. As the 12 Ribs lie upon the table the 1st is seen to rest evenly between its extreme points; the head of the 2nd is a little raised, and this *upward inclination of the head* increases as far as the 8th, and then diminishes to the 12th. Looking at the position of the Ribs in the skeleton, we notice that their downward obliquity increases from the 1st to the 9th, and then diminishes to the 12th. Moreover, the *aspects* of their sur-

(a) It might be as well to call the smooth articular part the *Tubercle* and the rough ligamentous part the *Tuberosity*.



faces vary. The surfaces of the 1st Rib look upwards and downwards, and its borders inwards and outwards. The surfaces of the 2nd have an inclination outwards and inwards as well as upwards and downwards. The inclination becomes greater in the 3rd and 4th. The 5th, 6th, 7th, 8th, 9th, 10th, and 11th look inwards and outwards. In the 12th the outer surface is turned a little *downwards*, and the inner surface *upwards*. These peculiarities in *length*, *breadth*, *curvature*, and *aspect* specially relate to the shape of the Thorax. All the peculiarities have reference to the amount and kind of motion of which each Rib is capable. The *Heads* of the 1st, 10th, 11th, and 12th, have each a single oval facet for articulation with one dorsal vertebra only; the rest have two facets. The *Necks* of the 1st, 2nd, and 3rd Ribs are slender, but strong. The neck of the 1st is flattened from above downwards, that of the 2nd is prismatic, and that of the 3rd is flattened from before backwards, like the necks of the rest of the Ribs. The neck of the 4th is wider, the *crest* on the upper border beginning to appear, and gradually becoming more prominent to the 9th. In proportion to the elevation of the crest and the descent of the lower border is the width of the neck. In length the neck diminishes in the 10th, 11th, and 12th. In the 11th the neck is regarded as absent.

The *Tuberosity* of the 1st is prominent on the outer border of the Rib, and bears a facet convex from above downwards and elongated transversely. The facet on the 2nd has a similar shape. The other facets are round or oval, situated on the posterior surface of the neck near its lower border, and sometimes projecting underneath the latter, so as to be visible from the front. The *Tuberosity* is usually absent from the 11th and 12th Ribs, but I have seen the 11th and even the 12th articulating by means of a small facet with the transverse process of its corresponding Dorsal Vertebra. In this lecture-skeleton the 11th Ribs articulate with the Transverse Processes by means of considerable facets. I have noticed this in several subjects, and believe that it occurs more frequently than is generally supposed.

The differences in the slope of the Ribs from their vertebral to their sternal ends relate to the degree to which their anterior ends are capable of being raised in inspiration. The greater the slant the greater will be the capacity for elevation, and it will be evident that this capacity will be most considerable in the 8th and 9th Ribs. The differences in the mode in which the posterior segments join the anterior segments of the Ribs, as shown by the relative inclination upwards of their heads when the Ribs are placed on a flat surface, would appear to bear reference to the degree of elevation of which the middle portions of the Ribs are capable as well as to the elevation of their anterior ends. The differences in the articular facets on the Heads, in the Necks, and in the shape of the articular facets on the Tuberosities correspond with the kind of motion performed by each Rib. The 1st Rib, lying evenly between its extreme points, having a single facet on the Head, a Neck flattened from above downwards, a convex facet on the Tuberosity elongated transversely and passing horizontally outwards to the ascending Transverse Process of the first Dorsal Vertebra, is adapted for moving on a transverse axis drawn through its Head and Neck. Its movement is one of simple rotation on this axis, by which means its anterior end, carrying the Manubrium, is merely elevated and depressed. In proportion as the Necks become flattened from before backwards as the facets on the Tuberosities become rounded or elongated from above downwards, and as the anterior and posterior segments of the Ribs unite at a sharper angle and more unevenly, in the same proportion do the Ribs acquire movements compounded of elevation of their anterior ends (which it will be remembered involves rotation of the Necks), and of elevation of the middle portion of the Ribs (which involves raising of the outer ends of the Necks and Tuberosities). In rotation of the Neck, the convex facet on the Tuberosity (or convex *Tubercle* as it may best be called) rolls in the concave facet on the Transverse Process, and tends to descend; in elevation of the Neck the Tubercle ascends, sliding on the facet on the Transverse Process. These compound movements will be most marked about the 8th or 9th.

The *Angle* in the 1st Rib corresponds to the Tuberosity, and in the 2nd is close to the Tuberosity. In the rest the interval between the Angle and the Tuberosity increases gradually to the last Rib, on which a little roughness only is distinguishable.

The development of the *Ridge* is deserving of attention. In the 1st Rib it corresponds to the inner border of the bone. In two or three of the following Ribs it is found running only

a short course, and ending perhaps in the upper border of the bone. In all the rest it begins at the lower border of the head, and pursues its way on the shaft till it is lost in the lower border. From the account given of the Ridge in our text-books, we should infer that it was an addition to the Rib, the simple line of insertion of the internal intercostal muscle, at the best a buttress or a ridge, and nothing more. Examining a Rib more carefully, we observe that the Neck in some has two margins to its under border, an anterior and a posterior. The anterior margin continued on to the shaft is the Ridge; the posterior margin runs to the Tubercle, by which it is interrupted, and then becomes prolonged forwards, as the lower border of the shaft. In other Ribs the posterior margin of the Neck is suppressed, and the lower border of the shaft of the Rib commences at the tubercle. Looking at the Ribs from the front, we see that the Ridge is the *continuation of the lower border of the Neck*. The groove and the lower border of the shaft appear to be additions to the Rib, and the Rib is made more symmetrical by their removal with the saw.

The *Groove* is absent from the 1st and 12th, short on the 2nd Rib, gradually lengthens to the 9th, and then as gradually the lower border of the shaft dies away.

The comparative development of the *Angle*, the *Ridge*, and consequently the *Groove*, bears a strict relation to the length and strength of the individual Ribs, and their importance as instruments for increasing the capacity of the chest in the respiratory act. Recollect that ridges on bones generally attach processes of fibrous tissue, and either ligaments or the tendons or tendinous fibres of muscles. The development of a ridge, or a rough surface for a muscle, is in exact proportion to the strength of the muscle, and the growth of both increases with equal steps. The more prominent therefore the angle or the ridge of the Rib, the more powerful will be the muscle attached to it. Recollect also that the power of a muscle in moving a joint has an exact relation to the distance of its attachment from the centre of motion, and the comparative distances of the angle from the tubercle will be readily explained.

There are still some SPECIAL FEATURES of the 1st Rib requiring notice. We have mentioned the *position*, the *aspects*, and the *curvature* of the 1st Rib, its *single facet* on the *Head*, its *Neck* flattened from above downwards, its prominent *Tuberosity* corresponding to its angle, and its facet elongated transversely. The additional features are a convex outer border, round and thick behind, thin in front; a concave *Inner Border*, sharp, and bearing in the centre a *Tubercle*, a large and thick anterior end, and the impressions on its upper surface. This surface forms a flat shelf, or ledge, marked by the impressions of two large blood-vessels which it supports, and two muscles to which it gives attachment. The blood-vessels are the large artery and vein, which in their passage through the upper opening of the Thorax to and from the upper limb rest on the 1st Rib, and lying underneath the Clavicle, are called the Subclavian Artery and Subclavian Vein. The two muscles are named the *Anterior* and *Middle Scalene* Muscles, which are concerned in elevating and steadying the Rib; and they descend from the Transverse Processes of the Cervical Vertebrae to the 1st Rib like the shrouds or rattlins of a mast. For the Vein and Artery there are shallow grooves running from the inner to the outer border of the Rib, and separated by a *Ridge* or impression, which commences at the Tubercle, and gives attachment to the Anterior Scalene Muscle. The Tubercle and the Muscle are taken as guides to the Subclavian Artery in surgical operations. The Subclavian Vein lies in front, resting on the Anterior Scalene Muscle; then follows the Subclavian Artery, resting behind on the Middle Scalene Muscle. The impression for this muscle is rough, and extends from the groove for the artery as far as the Tubercle. The upper surface of the 1st Rib is marked also by a line which runs from the Tubercle forwards to the anterior border, and cuts off a rough surface externally. It is inside this line or ridge that the Middle Scalene Muscle is attached. On the 2nd Rib there is a similar ridge and impression, and on the middle of the outer surface is a rough elevation for the Serratus Magnus Muscle. The Posterior Scalene Muscle is attached to the hinder impression.

The *Costal Cartilages* have each two *surfaces*, two *borders*, and two *extremities*. The *Outer Surface* is convex, the *inner* concave. The *Superior Border* is concave; the *Inferior Border* is convex. In *length* the Cartilages increase from the 1st to the 7th, and then diminish to the last. In *breadth* they diminish from the 1st to the last. Their *outer ends* are implanted in the terminal cups on the Ribs, and are wider than their inner



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ends. Their *direction* varies. The 1st has a slight descent, the 2nd is horizontal, the 3rd ascends slightly; the others, at first descending in the direction of the Ribs, curve upwards and ascend more and more to their inner attachments.

The Costal Cartilages act as buffers in the concussions to which the Thorax is subjected, and by their elasticity they materially aid the movements of respiration. "A blow on the Sternum is distributed over fourteen elastic arches." (a)

The floating Ribs may be found reinforced by the 10th failing in its attachment, and the Costal Cartilages have often been observed to show curious irregularities of form and disposition. To the preparation in our Museum marked Cza 139, and included in our anatomical collection, I must call your special attention. It is a Sternum from an adult, probably a female, with the Cartilages of the Ribs attached to it. Neither the Manubrium nor the Ensiform Cartilage is ankylosed to the Gladiolus, but both are connected with it by soft tissue, apparently Cartilage. The 6th Costal Cartilages are partially united with the 7th, about two inches from the Sternum, and then run up to their usual separate points of junction with that bone. The 8th Costal Cartilages are also amalgamated with the 7th below, but above lie in close apposition to the 7th, and join the Sternal Column between the Ensiform Cartilage and the Gladiolus. This specimen appears to be, and has been considered to be, an example of the attachment of eight Ribs separately to the Sternal Column. The age of the person from whose body it was derived was probably between 30 and 40. It is not improbable, therefore, that the 7th and 8th Cartilages might have united further later in life. Another specimen in my possession which I removed from the body of a female, has eight pair of Ribs articulated with the Sternum. Professor Humphry, of Cambridge, mentions in his work on the Human Skeleton, that a similar specimen exists in the Anatomical Museum of Cambridge, but he does not tell us whether it belonged to a male or a female. I have little doubt that if attention were directed to the point it would be found that such a peculiarity is not uncommon, and it might be interesting to note whether it occurs more commonly in the female or in the male.

In *structure*, the Costal Cartilages, according to Todd and Bowman, occupy an intermediate place between the Cartilages which are found in the joints, or the *Articular* Cartilages, and the Flat Cartilages, or *Membraniform* Cartilages composing the walls of the Larynx. The cells are very large, with two or more nuclei, and have a linear arrangement. The intercellular substance is abundant, and has a fibrous appearance. In old age bony matter becomes deposited in the Cartilages.

The *Ribs*, although in point of shape Long Bones, are in point of structure *Flat* Bones, being composed, as already stated, of two plates of compact tissue with intervening cancelli. They appear to have been originally regarded as strips of bone torn off from one large flat bone, for the term Rib probably means anything torn or ripped asunder, and the Ribs are the bones which extend separately and asunder from the back-bone. The split boards with which the sides of a ship are covered are called Ribs, and so are the divisions of the stalk forming the skeleton of a leaf. (b) In vulgar parlance a woman is called a Rib, because she was fashioned out of a Rib removed from Adam's side. (c)

(End of Lecture X.)

(a) Holden, "Osteology," p. 217.

(b) Encyclopedia Metropolitana, Article Rib.

(c) This use or misus- of the term would appear to be adopted in the American vernacular. In the "Biglow Papers," which abound in humour, Mr. Bird-o'-freedom Sawin, a Mexican soldier, recounting his bodily hurts and losses in the war, observes:—

"I've hed some ribs broke, six (I b'lieve), I hain't kep' no account on 'em; Wen pension gits to be the talk, I'll settle the amount on 'em. And now I'm speakin' about ribs it kin' o' brings to mind One that I couldn't never break—the one I lef' behind: Ef you should see her, jest clear out the spout o' your invention, An' pour the longest sweetest in about an annoval pension, An' kin' o' hint, in case you know, the critter should refuse to be Consoled, I ain't so 'xpensive now to keep as what I used to be: There's one arm le-s, ditto one eye, an' then the leg that's wooden Can be took off and sot away whenever there's a pud lin'."

In London the total number of deaths reported during the week was again below the average, being 1,336: zymotic diseases 203, including 86 of diarrhoea, 31 of scarlet fever, 28 of whooping-cough, 23 of measles, and from diseases of the respiratory organs, 322.

THAT "house and messuage," No. 315 Oxford Street, which had been once upon a time the College of Chemistry, has recently passed into the hands of the General Council of Medical Education, at an annual rental of £300, and after an expenditure by the Government of £1,500. On Thursday last, for the first time, its doors were publicly and officially thrown open for the reception and grave deliberations of its new tenants, and although it is in quite an unfinished state, paintless to a great degree, carpetless in part, and we fear we may add damp, just at present, still, from its capacity, its central position, and the accommodation it will afford for all purposes bearing on Council matters, the General Council of Medical Education and Registration have very good reason not only to be satisfied with their new premises, but also to be a little vain—were it possible for so subtle a "weakness" to penetrate into the midst of such an august assembly—of their leasehold.

For the information of those of our readers who may not have for some time to come an opportunity of visiting this Council-house, we may just observe that in external appearance it reminds us very much of the ordinary "detached villa" of our metropolitan suburbs—but it is not detached. The massive pillars bearing ornamental capitals give to the exterior of the building an appearance of solidity and ornamentation. Still, it looks square, squatty, homely, and comfortable. Its storeys from the footway are two. We enter from the street by a door which leads to a passage, or hall; this hall cuts the basement into two portions right and left of two rooms each, and subsequently conducts us to the stairs by which we descend to the Council Chamber. This chamber is situate at the rear of the rooms alluded to. These rooms are to be the several offices and waiting-rooms of the Council. The Council Chamber is square (about 60 by 60 ft.), lofty, lightsome, and at present wretchedly ventilated. With the exception of some really fine "marone" morocco-caparisoned chairs, escutcheoned in gold, what may prove to be—were it uncovered and relieved from the heavy burthen of medical literature that so *accumulatively* oppresses it—a capacious table, one or two smaller tables, and a carpet—to which we allude merely in order to note the fact, the Council Chamber is both unfinished and unfurnished, crude, paintless, and paperless. By a side-stair from the hall we pass to what had been intended for the reporters' gallery; it has not answered the purpose so far, consequently accommodation for the Press has been made to meet the present occasion by the introduction of side-tables and chairs in the vicinity of the members of the Council.

Above the four rooms alluded to are, we have been informed, large rooms intended to be used for select committee rooms, refreshment room, &c. The latter is well supplied just now, we have no doubt; yet we would be wanting in public duty and in respect to ourselves—cruelly we were about to add—and to those who may have to undertake duties such as ours at 315 Oxford Street, where the thermometer may range high as at present, were we to omit mention of the fact that milk biscuits at 6d. per lb. often cause dyspepsia, that the revivifying or tonic effects produced by the imbibition of claret we have some doubts about,—that *that* water, pure and simple, should be drunk—if it must be drunk—even during a few afternoon hours in midsummer, not *above* blood heat, and that we would much prefer—should we be ever again similarly placed—a few minutes' time during each sitting in order to visit the nearest confectioner, as thirst will come, and we disapprove the use of *hot* water, claret, and kindred stimulants, even on exceptional occasions.

The proceedings of the Council of Medical Education and Registration, so far as it has been yet possible to report them, including the President's address, we append, and from the proceedings that followed the reading by him of that document, it will be seen that he has determined, at the close of the session, to resign the chair he has filled with so much ability, strict impartiality, courteousness, and judgment during the years he occupied it.

The contemplated retirement of Dr. Paget is much to be regretted. Active, able, and consistent, the responsible duties undertaken by him have been performed, as we

have said, in such a becoming manner as to leave nothing to be desired, save a sincere wish that he might be induced to continue to guide with the same steady eye, and the same firm hand, the educational ship. The recent changes in the construction of the Council, the introduction of new, fresh, and vigorous blood into the crew of the ship as it were, and the hearty co-operation of Drs. Macnamara, Haldane, Begbie, and Professor Turner point to a bright future of usefulness for the General Council of Medical Education. Already the new councillors have displayed signs, not only of vitality, but of considerable animation and active life. In Dr. Haldane and Professor Turner our friends beyond the Tweed may feel—and we base our unassuming judgment on premonitory symptoms—perfectly satisfied that their interests are in safe hands; whilst in Dr. Macnamara the Irish College of Surgeons have secured a councillor, active—as he is universally acknowledged to be—able, cautious, thoughtful, and progressive, a gentleman whom the rank and file of the College he represents may regard as their faithful representative, proud of her history and the glorious reputation indelibly impressed on every page of it, anxious and chary for her future prospects and achievements.

#### MINUTES OF MEETING, THURSDAY, JULY 9, 1874.

315 Oxford Street, London, W.

Present—Dr. Paget, President, in the chair, Dr. Bennett, Mr. Quain, Mr. Bradford, Dr. Acland, Dr. Humphry, Dr. Pyle, Dr. Storrar, Dr. Andrew Wood, Dr. Fleming, Dr. Thomson, Dr. A. Smith, Dr. Leet, Dr. Apjohn, Sir D. Corrigan, Bart., Dr. Sharpey, Dr. Parkes, Dr. Quain, Sir Wm. Gull, Bart., Dr. Stokes, and Dr. Francis Hawkins, Registrar.

The minutes of the last meeting were read and confirmed.

Letters were read from Sir Dominic Corrigan and from Dr. Leet, stating that each of them had been prevented from attending at the hour appointed by the Council to-day through the necessity of attending to give evidence before a Committee of the House of Commons.

The following official notifications of the appointment of new members of the General Medical Council were then read.

Extract from Minutes of Quarterly Meeting of the Royal College of Physicians of Edinburgh, held within their Hall, the 4th day of November, 1873.

“The Royal College of Physicians of Edinburgh then, on the motion of Dr. Wood, seconded by Dr. Malcolm, in pursuance of the power given to them by the Medical Act, appointed Dr. Daniel Rutherford Haldane, of Edinburgh, a Fellow of this College, to be a Member of the General Council of Medical Education and Registration of the United Kingdom for the term of five years from this 4th day of November, 1873.”

A correct extract from the minutes of the Royal College of Physicians of Edinburgh, of 4th November, 1873.

(Signed) D. R. HALDANE, Secretary.  
CHRIS. DOUGLAS, Clerk.

The University, Aberdeen, 1st Nov., 1873.

We, the Principal and Masters of the University of Aberdeen, in pursuance of the power given to us by the Medical Act, do hereby appoint Professor William Turner, University of Edinburgh, to be a Member of the General Council of Medical Education and Registration of the United Kingdom for the term of five years from the 1st day of November, 1873.

(Signed) P. C. CAMPBELL, Principal.  
WM. MILIGAN, Secretary.

November 11th, 1873.

We, the Senatus Academicus of the University of Edinburgh, in pursuance of the power given to us by the Medical Act, do hereby appoint William Turner, M.B., Professor of Anatomy in the University, to be a Member of the General Council of Medical Education and Registration of the United Kingdom for the term of five years from the 19th day of October, 1873.

(Signed) JOHN WILSON, Sec. Senat. Acad.

Royal College of Surgeons in Ireland,  
Dublin, February 20th, 1874.

Sir,—I have the honour to inform you that Rawdon Mac-

namara, Esq., M.D., was elected yesterday Representative of this College on the General Medical Council for the space of one year from February the 16th, 1874.

I remain, Sir, your obedient servant.

(Signed) J. STANNUS HUGHES, Secretary.

Dr. Hawkins.

Council Office, Whitehall, Nov. 25th, 1873.

Sir,—I am directed by the Lord President of the Council to transmit to you for the information and guidance of all whom it may concern, the enclosed order of Her Majesty in Council of the 20th inst., appointing for five years from 20th November, 1873, Dr. Edmund A. Parkes, and Dr. Richard Quain Members of the General Council of Medical Education and Registration of the United Kingdom for England, and appointing Dr. J. Warburton Begbie for Scotland, and reappointing Dr. William Stokes for Ireland.

I am, Sir, your most obedient servant,

(Signed) E. HARRISON.

The Registrar, General Council of Medical  
Education, 32 Soho Square, W.

At the Court at Balmoral, the 20th day of November, 1873, present—The Queen's Most Excellent Majesty in Council.

Whereas, by an order of her Majesty in Council, dated the 7th day of November, 1868, her Majesty was pleased, under and by virtue of the provisions of the Medical Act, by and with the advice of her Privy Council, to re-nominate and re-appoint for five years from the 17th day of November, 1868, Edmund Alexander Parkes, Esq., Doctor of Medicine, Professor in the Army Medical School, Netley, and Richard Quain, Esq., Doctor of Medicine, of Harley Street, London, to be respectively Members of the General Council of Medical Education and Registration of the United Kingdom for England, and to re-nominate and re-appoint for a like period Robert Christison, Doctor of Medicine, Professor in the University of Edinburgh, to be a Member of the said General Council for Scotland, and to re-nominate and re-appoint for a like period William Stokes, Esq., Doctor of Medicine, Regius Professor in the University of Dublin, to be a Member of the said General Council for Ireland. And whereas, under and by virtue of the provisions of the said Act, the said Edmund Alexander Parkes, Richard Quain, Robert Christison, and William Stokes did, on the 17th day of November instant, respectively cease by lapse of time to be members of the said General Council. Now, therefore, her Majesty, by and with the advice of her Privy Council, doth, under and by virtue of the provisions in that behalf contained in the said Medical Act, nominate the said Edmund Alexander Parkes and Richard Quain to be again, from and after this 20th day of November inst., respectively Members of the said General Council for England, from and after the same date, James Warburton Begbie, Esq., Doctor of Medicine, of Great Stuart Street, Edinburgh, to be a Member of the said General Council for Scotland, and the said William Stokes to be again, from and after the same date, Member of the said General Council for Ireland, the said several nominations to continue for the term of five years from the day last aforesaid.

EDMUND HARRISON.

Dr. Andrew Wood then introduced—

Dr. Daniel Rutherford Haldane, who replaces Dr. Alex. Wood; Professor Wm. Turner, who replaces Dr. M'Robin; and Dr. James Warburton Begbie, who replaces Professor Christison.

Dr. Stokes introduced—

Dr. Rawdon Macnamara, who replaces Dr. Hargrave.

3. The President then proceeded to address the Council as follows:—

Gentlemen,—I congratulate you on your new abode. I trust that the Council at large will be satisfied with the way in which the Executive Committee has carried out the instructions “to obtain premises where the meetings of the Council may be held and the general business carried on with comfort and convenience.”

The result, which you see, has cost not only much time, but some trouble. A report on the subject will immediately be laid before you by the Executive Committee; and if any further information be desired, it will gladly be given by the treasurers or myself. I have thought it advisable that such

parts of my correspondence with the late Government as have not already appeared in the minutes of the Executive Committee, should be arranged and placed in the office, so that all that has passed with regard to this house can at any time be readily referred to. The terms on which the Council will hold the house are not so favourable as we had been led to expect, but if any member of the Council thinks that the Executive Committee might have done better, I will beg him to consider *all* the circumstances of the case, and to look at the answer of the then Government to the application of the Council, and to remember the actual pressing necessity in 1858 for providing a local habitation for the Council before we should lose the power of retaining even our insufficient accommodation in Soho Square. The letter from the late Government offering this house to the Council was dated the very day of their resignation of office. To one part of this letter I may refer with some gratification—that in which the Lords of the Treasury expressly recognise the claims of the Council to a certain measure of public assistance. These were the grounds on which the application to Mr. Lowe, for apartments, rent free, was made and urged. The claim was expressly disallowed in 1858. I am glad that now it has been however, partially admitted. It is not quite reasonable or fair that the cost of the work done by the Council should be wholly defrayed out of the registration fees paid by men entering our profession. The persons benefited by this work are not members of our profession alone or chiefly, but in a much higher degree the general public, for the chief purpose and end of our work is to prevent the entrance into the profession of persons in whose hands the health and lives of the public could not be safely trusted.

I believe—indeed I have no doubt—that to Mr. Lowe we are mainly indebted for the favourable terms on which this house was offered to us. If less favourable than we had reason to expect, they are yet not undeserving acknowledgment.

From the present Government we have received prompt courtesy. An application to the Treasury for a reasonable concession in regard to the date of the lease was answered by return of post, and the answer was favourable. To the officials of the Office of Works we are really under great obligations for their readiness in receiving suggestions for the requisite alterations in the building, and for the skill and activity with which these have been carried out. The building *was* a mere shell, wholly unfit for our needs. You will see what it now is, and can judge what it will be when all that is intended shall have been quite completed.

We are very greatly indebted to the good will and zeal and ability of the Office of Works, for all that they have done has been done, as it were, against time—in a very short period. And we are certainly not less indebted to our Treasurers, and particularly to Dr. Quain, who, as many of you know, has been, from first to last, the chief moving spirit in this business. But for him we could not possibly have met here to-day. But for the unsparing devotion of his valuable time to our service—his time by night as well as day—we might now, in this broiling weather, have been cooped up in the corner of Soho Square. We owe, also, not a little to his thoughtfulness and his taste.

But all this is well known to others besides myself, who are better able than I am to express adequately our thanks.

In opening the session of this spacious hall, I have one regret only—that *all* those who sat with us in Council last year are not here to-day. Four of them are absent. Sir R. Christison, whose words added weight to any debate—whose name has, for so many years, been known and held in respect wherever medicine is studied, representing as he does, in the highest degree, all that for which his University has long been famous. Alexander Wood, who, like Christison, was from the first a member of the Council, and whose great capacity for business, and equal or even greater gifts of oratory must have made him a marked man in any position in which he might have been placed. Macrobis—kindly, candid, honest, and able. I think it one of the many happy incidents of my connection with the Council, that it gave me his acquaintance and I hope his friendship. And we miss, too, the genial smile of our friend, Mr. Hargrave.

But our new colleagues must not think themselves less welcome because we do not forget their predecessors. We see in their presence that however great may have been any one of our losses, it is not too great to be replaced.

Since the last meeting of the General Council, the examinations of some of the medical authorities have been visited

and reported on. It would be superfluous for me to say much of these reports. They tell their own tales, and tell them with such manifest ability, as to require no commendation of mine. And they do more than convey information respecting particular institutions. They raise some question of a general kind, the discussion of which cannot fail to be serviceable to that which is our great object—the advancement of medical education and of the standard of acquirements in our profession.

But though I say no more than this of the reports themselves, I may be expected to make some mention of the arrangements of the Executive Committee for carrying out the visitations. In the selection of visitors regard was had to prior experience as examiners. Their number was purposely limited, so as to allow of one visitor inquiring into the examinations of more than one licensing body, and thus helping to guide us towards an equivalency of standards in parallel cases. I am sure that the Council will think the Executive Committee fortunate in having obtained the services of men so eminently qualified and whose statements and opinions are entitled to so much respect. By two gentlemen only were the invitations declined—by Dr. John Ogle and Mr. Teale, of Leeds; and in both cases with expressions of regret at their inability. We lost the valued services of Mr. Holmes on his appointment to the Board of Examiners of the College of Surgeons of England. His nice sense of propriety perceived an incompatibility in the two offices.

In all cases, when practicable, a physician and a surgeon were associated in the visitation.

No notice was given beforehand to the body about to be visited. The intention to visit was, I believe, in all cases kept secret.

The reports have not been subjected to any revision by the Executive Committee. In no case has even a single word been altered after the reports had been sent in. As to any instructions beforehand, none were given, except such as were needless in the case of such visitors. They were no more than that the reports should be thorough and unfettered—just what the visitors might observe and think for themselves.

Another work that has been done since our last meeting is the compiling and publication of the Additions to the *Pharmacopœia*. A report of the Pharmacopœia Committee will bring this under your consideration, and will, I doubt not, meet your approval.

Only a few words more—my last words I may call them—and pray, under the circumstances, forgive their egotism. Five years ago the Council did me the honour of electing me their President. This very day is the anniversary of my election, for I was elected on the 9th of July, at 6 p.m., or thereabouts. In a very few hours, therefore, my period of office will be at an end.

The honour bestowed on me five years ago was the highest I ever received—the highest I should ever care to receive. I am very conscious how small a return I have made for this distinction. But I have endeavoured to make such a return as you would most approve of, for I have tried to discharge my duties to the best of my ability. All honours have their responsibilities, and mine has been no exception. As President, I have been more responsible than any other member for the efficient discharge of the duties of the Council. And our joint responsibilities are not light; for they are of the same kind, and manifold more weighty than the every-day responsibilities of our profession. Like them, but in a larger sense, they are responsibilities to be measured by men's lives and men's sufferings. To raise and maintain a high standard of acquirements in those who enter our profession is our main duty here. To neglect this duty would be to let men die whose lives might be saved, to let men suffer whose health might be restored.

But in all responsibilities or difficulties, and amidst the many shortcomings of which I am sensible, I have always been sure of the support of the Council. Their kindness has never once failed me. During the entire five years of my office there has not been one single instance in which I have been treated otherwise than with the utmost kindness and consideration by all members of the Council, collectively and individually. I wish I could adequately express my gratitude.

Happily our responsibilities are limited by the extent of our powers, and by the proportion that our powers bear to the largeness and difficulties of our task. The powers given to the Council by the Medical Act are but slender. Its main

task, that of elevating medical education, is a large one. All great educational improvements are great tasks, and though ours be, in one sense, limited, being confined to one profession only, in another sense, it is very large, for its extent is the area of the whole United Kingdom. This is indeed a fact of which the Medical Council may well be proud. Our Council is, as far as I know, the only body, except the Houses of Parliament, of which both the constitution and functions are truly imperial, the only body in which English, Scotch, and Irish representative men meet together to consult upon and devise measures that shall be common to all three divisions of the kingdom. In this the Medical Council sets an example that may well be envied, and might with advantage be imitated. But in this, which may well be our boast, is also, it must be admitted, one of our difficulties. The improvements, to be effectual for this purpose, must proceed *pari passu* throughout the whole United Kingdom. And another impediment to rapid progress is, that our members, English, Scotch or Irish, are, and I would say must be, or ought to be, for the most part, practitioners of medicine—men therefore busy at home, and meeting perhaps only when assembled together in our annual session, bringing, therefore, greater diversities of opinion than might perhaps be found if their intercourse were more frequent.

But notwithstanding these obvious difficulties, and though time is found by experience to be a great and necessary element in all great educational improvements, though we have not hitherto succeeded in simplifying our work by reducing to a small number the nineteen separate sets of examiners, yet our success has not been discouraging when compared with our powers.

It may be, and doubtless is, difficult to estimate the progress that has been made, but at all events we know that a few years ago a man could enter our profession without producing any evidence whatever of general education. Now a preliminary education is enforced on all, and the proofs of this are given in almost all cases prior to the commencement of medical studies. The future influence of this on the social status of our profession can scarcely be overrated. We know that a few years ago only three or four of the licensing bodies made clinical examinations a part of their tests of fitness for a diploma. This test was even spoken of as objectionable. Now all the bodies insist on it. We know that a few years ago in the examinations for medical commissions in the army or navy it was not uncommon to find about forty per cent. of the candidates ignorant and incapable, though already in possession of diplomas both in medicine and surgery. Of late these discredit failures have become so few as to be almost, if not quite, insignificant. I am happy to say that on the very last occasion of examinations for army medical commissions, those of March, 1874, which will be laid before you to-day, there was *not one* of these failures. And surely the like signs of improvement are equally manifest *throughout* our profession. Teachers tell us so. Laymen have no doubt of it. Certainly my own experience is so. I know not a few young village practitioners whose acquirements might have placed them a few years ago in the foremost rank of practitioners in large towns.

I do not claim for the Medical Council *all* the credit of these improvements. Something is due to the admirable spirit for doing better and better which pervades our profession, and is kept alive by the medical journals. Some share of the credit may also fairly be given to the licensing bodies; *all* of them have improved their examinations, and some of them have set an admirable example and seconded this Council with a most praiseworthy public spirit.

May I venture to add, to what I have already said, that the limitation of our powers both in education and still more in other matters relating to our profession—that our difficulties and the degree of success actually attained by us have become better known to the profession at large than they were some five years ago; that it is now more clearly seen that the Council has not the same freedom of action as a voluntary association—that it cannot take part in all matters that concern the profession—that many such matters, however interesting and important to the profession, are altogether beyond or beside the functions of the Medical Council as defined by Act of Parliament, and that the Council is less obnoxious to blame than was formerly supposed, for want of energy in dealing with the licensing bodies.

Have we then in that which is our chiefest duty—the providing for the public the best possible medical advice—have we yet attained that happy standard of excellence at which

we may rest and be thankful? I am very far from thinking this. I am far from thinking that the actual state of things is *satisfactory*. Nothing, indeed, is *satisfactory* which admits of further improvement. That there is room for further improvement is not doubtful. But enough has been effected to encourage the Council in doing more.

It is true that the powers given to it by the Medical Act are slender, but it has an influence more ready and sure in its operation than the statutable coercive power, which could be exercised only through an appeal to the Privy Council, and which would probably fail, except in case of very plain dereliction of duty on the part of the offending body.

The chief power of the Council, as I believe, is that which it gave itself; when, on the motion of our friend, Dr. Andrew Wood, the Council determined that its debates should be *public*. The agency of the Press giving publicity to our debates and proceedings, has, I believe, more than doubled the power of the Council—doubled its power for anything that is right and reasonable—doubled and more than doubled its influence with the licensing bodies in any question in which this council may be in the right, and they in the wrong.

I have, therefore, no fear as to the future of the Medical Council. It has before it a course of usefulness, which I am sure will be followed with success.

Its main purpose is of the highest national importance. How this may best be effected will be for you to decide, and is not for me to indicate. It would be unbecoming for me to talk of what should be the work of the council in the coming time, when I shall no longer be a member of it. I shall look on, from a distance indeed, but with unceasing interest and with the respect which I have long learned to feel, and shall never cease to feel, for the Medical Council.

I will now resign my chair, and leave you to choose my successor.

Hereupon Sir James Paget vacated the chair he had for so long ably occupied, and retired from the Council Chamber.

On the motion of Dr. Wood, seconded by Dr. Aquilla Smith, Dr. Stokes was called to the chair.

Then it was moved by Dr. Storrar, seconded by Dr. Allen Thomson, and agreed to—

“That the address of the President be entered on the minutes.”

Dr. Andrew Wood stated that as one of the oldest members, having sat with Brodie, Greene, Burrows, and the retiring President, he had great pleasure in proposing the following resolution:—

“That the hearty thanks of the Council be given to Dr. Paget for the great courtesy, impartiality, ability, and success with which he has discharged the duties of President of the Medical Council.”

In seconding the motion of Dr. Andrew Wood, Dr. Aquilla Smith said he had particular pleasure in doing so. Dr. Paget's effective relation to the Committees was well known to him, and he was glad of the opportunity to thus acknowledge them.

Moved by Dr. Andrew Wood, seconded by Dr. Apjohn, and agreed to unanimously:—

“That Dr. Paget be re-elected President of the General Medical Council.”

Dr. Paget having retired not only from the chair and the Council Chamber, but also from the very building wherein he had recently exercised so exalted a position, a courier was despatched to convey to him the announcement of his re-election to the presidential chair, and from the delay the incident occasioned the difficulty of re-capturing him seemed very considerable.

In the interval Dr. Quain seemed anxious to press a resolution in reference to the diplomas on midwifery issued by the Queen's University in Ireland, although it was pointed out to him that Sir Dominic Corrigan, the representative at the Medical Council of that body, had not yet taken his seat. For the reason adduced, (*vide* the preliminary proceedings.)

At length Dr. Paget having returned to the Council Chamber, stated that he heard there was a message for him, and being told of his re-election to the presidential chair, resumed it amidst applause, during which he offered to the assembly in his usual kind and effectual manner a few trite words of thanks for the honour again bestowed on him, he regretted that at the close of the session he should retire from the Presidency.

The following committees were then appointed:—

## THE BUSINESS COMMITTEE.

Dr. Andrew Wood, Chairman. Dr. A. Smith, Dr. Leet, Dr. Haldane, Dr. Pyle.

Moved by Dr. Andrew Wood, seconded by Dr. Begbie, and agreed to:—

"That the Finance Committee consist of the following members:—Dr. Quain, Chairman. Dr. Bennett, Dr. Sharpey, Dr. A. Smith, Dr. Fleming.

The following report of the Executive Committee on the new premises for the Medical Council was then read.

## REPORT OF EXECUTIVE COMMITTEE AS TO THE NEW OFFICES OF THE COUNCIL.

In pursuance of the resolution of the General Medical Council of March 5, 1872, the Executive Committee have been in communication with the Government, as the Council are aware, for many months. After protracted negotiations they have at last succeeded in obtaining the premises in which the Council are summoned to meet, well known as formerly the Royal College of Chemistry. The terms on which the house has been granted have been made known to members of the Council by the minutes of the Executive Committee of February 23, 1874, to March 27, 1874.

They are, shortly stated, a lease of 31½ years, at a yearly rent of £300, the Government undertaking to expend £1,500 in adapting the building to the wants of the Council, and reserving a right of terminating the lease at the end of seven, fourteen, or twenty-one years.

It is estimated that the total annual expenses of the house, including the care of it, the rates, and all other charges, will not be less than £460. This should be borne in due proportions by the General Medical Council and the English Branch Council.

The latter Council resolved, April 2, 1874, that they will be prepared to contribute for their accommodation in the same proportion as they have hitherto done in Soho Square. This offer of the English Branch Council is very advantageous to the General Council, and the Executive Committee therefore recommend the Council to accept it.

If this arrangement be adopted, the annual expense chargeable to the General Council may be estimated at one-third of £460, i.e., £153 6s. 8d., which will have to be defrayed out of the percentage rate, and will therefore fall on the several Branch Councils, in proportions, which will vary a little from year to year.

Taking the percentage rate as it has been on the average of the last three years, the incidence of the expense of the house on the Branch Councils may be estimated as follows:—

The English Branch will pay—			
Two-thirds of £460	...	...	£306 13 4
Rateable proportion of £153 6s. 8d.	106 8 5		
			£413 1 9
The Scotch Branch will pay	...	...	21 16 0
The Irish Branch will pay	...	...	25 2 3
			£460 0 0

A considerable sum must also be expended in paying for the requisite furniture and fittings. The amount cannot be exactly estimated at present, but it is thought that it will not much exceed £500.

The Executive Committee regret that, notwithstanding the strenuous exertions of the office of works, the building is still in a somewhat unfinished state.

Moved by Dr. Andrew Wood, seconded by Dr. Begbie, and agreed to:—

"That the report of the Executive Committee on the new offices of the Council be received and entered on the minutes."

Moved by Dr. Storrar, seconded by Dr. Pyle, and agreed to:—

"That the General Council approve the arrangements recommended by the Executive Committee for the apportionment of payment by the Branch Councils of the rent, taxes, and expenses of offices, &c."

Moved by Sir William Gull, seconded by Dr. Sharpey, and agreed to unanimously:—

"That the thanks of the Council be given to Dr. Quain for his services in the negotiations and other business connected with the acquisition of, and furnishing the new premises of the Medical Council."

The following opinion of counsel respecting diplomas in midwifery, issued by the Queen's University in Ireland, and previously alluded to (see Minutes G. C., vol. x., p. 114), was then read:—

"We are clearly of opinion that the Medical Council cannot register the diplomas in midwifery granted by the Queen's University in Ireland."

(Signed) G. JESSEL.

CHARLES BOWEN.

The reports of visitations of examinations were then submitted to the Council.

And it was moved by Dr. Andrew Wood, and seconded by Dr. Parkes:—

"That the reports of visitations of examinations be received and appended to the minutes of the present session of the Council."

Dr. Storrar now rose and questioned the judiciousness of publishing these reports and feared it would lead to and give pain to many of the public. He acknowledged the importance of these visitations, consequently they should be chary in the matter. The function should be exercised by the Council in a friendly spirit, and received by the colleges in a like spirit. He considered these reports should be sent to the bodies to which they belonged, confidentially, and in the spirit of co-operation, and ask particular attention to them. The object should be to see when deficiencies and faults existed, and to correct where laxity existed. A few years ago a visitation of the London University led to suggest alterations which were subsequently acted on.

Dr. A. Wood supported his resolution, although he did not agree to many things in these reports.

Dr. Macnamara objected very strongly to their publication, he said it was not fair to an institution to speak of faults which do not exist, and in a particular instance. At the same time as the representative of one of the colleges visited he desired the fullest enquiry.

Dr. Quain was in favour of the resolution.

Dr. Fleming objected.

The President asked if these reports were to be discussed should they be discussed in private.

Dr. Storrar wished to show they should be discussed in private, if at all, but was told by the President he had previously spoken on the question.

Dr. Bennett suggested the reports be received as read, but not appear in to-morrow's programme.

Dr. Humphrey considered the report should be entered on the minutes.

Dr. Haldane, as representing one of the colleges visited, courted discussion.

Dr. Paget considered if the amendment was to be carried it would be difficult to have the matter discussed in public.

An amendment moved by Professor Turner, and seconded by Dr. Storrar was negatived; it was as follows:—

"That the reports of the visitors of examinations be received, but held for the present as confidential."

After a protracted discussion, in which Drs. Bennett, Humphry, Smith, Quain, Sir H. Corrigan, and others took part, it was

Moved by Sir W. Gull, seconded by Dr. Apjohn, and agreed to:—

"That the reports of the visitations of examinations be considered to-morrow in committee of the whole Council."

The following letter was then read:—

Dinsdale Park, Darlington,

Jan. 16th, 1874.

SIR,—I am requested to inform you that at a meeting of the South Durham and Cleveland Medical Society, which was held at Middlesbrough on the 7th inst., the members were unanimous in their opinion that the Medical Council was ineffectual for the proper protection of legally qualified medical men, and for the prosecution of those who are unqualified. It was also maintained that the General Medical Council was the most suitable body for undertaking public prosecutions under the Act.

I am, Sir, your obedient servant,

J. W. EASTWOOD, M.D., M.R.C.P.L.,

President of the South Durham and Cleveland Medical Society.

Moved by Dr. A. Smith, seconded by Dr. Acland, and agreed to:—

"That an extract from the Minutes containing the Report on Prosecutions adopted in 1859 (see Minutes G. C., vol. i., p. 35) be forwarded to Dr. Eastwood for the information of the South Durham and Cleveland Medical Society."

Two letters from the Assistant-Secretary to the Board of Trade were read respecting two registered practitioners who were

not allowed to take charge of emigrant ships in consequence of their misconduct, which consisted, it would appear, in having been intoxicated as the ships were about to leave harbour.

Moved by Sir D. Corrigan, seconded by Sir W. Gull, and agreed to :

"That the Registrar acknowledge the receipt of the letters and state that the Council have no power to interfere in the cases referred to."

Read—A letter from Dr. Walter Mackern, complaining of a registered practitioner lending his name illegally to a person unqualified.

Moved by Sir Dominic Corrigan, seconded by Dr. A. Smith, and negatived :

"That the Registrar acknowledge the receipt of the letter just read, and refer Dr. Mackern to clause XL of the Medical Act, which empowers him to proceed against offenders against that clause of the Act."

After a judicious and able argument in support of the complaint tendered by Dr. William Mackern, Dr. Macnamara proposed, and Dr. Leet seconded the following amendment, which was subsequently carried :

"That a committee be appointed to take Dr. Mackern's letter into consideration and to report to this Council at an early date."

The Committee to consist of—Dr. Macnamara, Chairman, Dr. Andrew Wood, Dr. Leet, Dr. Bennett, and Dr. Storrar.

Moved by Dr. Acland, seconded by Dr. Apjohn, and agreed to :

"That copies be obtained of the report of the Committee of the House of Commons on the adulteration of food : and further, that a Committee be appointed to consider the bearings of that report on the qualifications in 'state medicine' or in 'public health,' instituted by any of the bodies in Schedule (A) to the Medical Act."

The Committee to consist of—Dr. Acland, Chairman, Dr. Allen Thomson, Professor Turner, Professor Apjohn, Dr. Stokes, Mr. Quain, Professor Parkes, Sir Dominic Corrigan, and Mr. Bradford.

#### FRIDAY'S PROCEEDINGS.

To-day at one o'clock two special Council Committees assembled, one to take into consideration Dr. Mackern's letter, and the other to "consider the bearings of the report on qualifications in State Medicine or in Public Health instituted by any of the bodies in Schedule (A) to the Medical Act." The former consisted of Drs. Macnamara (Chairman), Wood, Leet, Bennett, and Storrar. The latter consisted of Drs. Acland (Chairman), Allen, Thomson, Stokes, Mr. Quain, Professors Parkes, Turner, Apjohn, Sir Dominic Corrigan, and Mr. Bradford.

Precisely at ten minutes past two o'clock the President resumed his chair, and the business of the General Council proceeded. The minutes of last meeting having been read, a desultory conversation amongst the Council arose as to the appointment of a surveyor for the recently acquired premises. Then the "tables showing results of examinations" were submitted.

Dr. Wood proposed—

"That the Council resolve itself into a Committee of the whole Council, for the consideration of the reports of visitations of examinations."

This was seconded by Professor Turner.

Sir Dominic Corrigan believed that not more than half of the licensing bodies permitted the presence at their examinations of the visitors of examinations. He was clearly of opinion the resolution should be deferred until a full and complete report from all the licensing bodies be received. A discussion followed in which the President, Drs. Quain, Wood, and others took parts. The motion was carried.

It was proposed by the President and agreed to—

"That the report on the examinations of the Society of Apothecaries of London, made by Dr. Quain, Dr. Barclay, and Mr. Busk, be taken as read."

Hereupon Dr. Quain addressed the Council on the merits of the report, dwelling with much force on the case of a candidate who had passed the College on the first anatomical examination, but, at the Hall examination he placed the spleen on the right side, then over the liver, and knew nothing whatever of cæcum and other viscera. He also alluded to the fact that the Society of Apothecaries had the power to confer its diploma on candidates without testing their knowledge of surgery.

An animated discussion followed in which many members of the Council took part, including Drs. Bradford, Thomson Sharpey, Bennett, the President, and Dr. Macnamara.

Dr. Andrew Wood believed the presumed faults alluded to by Dr. Quain were due not so much to the examination as to the ignorance of the candidate. He really questioned whether the early education of young men intended for the profession should not receive more immediately the attention of the Council. With regard to the remarks of Dr. Quain as to no surgical examination being required by the Apothecaries Company, he, (Dr. Wood) was of opinion that until candidates underwent a complete examination on all medical subjects their names should not be placed on the Medical Register.

Mr. Bradford having offered some explanatory remarks on the subject, introduced by Dr. Quain, it was moved by Dr. A. Smith, seconded by Mr. Quain, and agreed to :

"That a copy of the reports of the visitations of examinations be placed in the hands of the reporters now present at the meeting of the General Medical Council."

It was then moved by Dr. Quain, seconded by Dr. Pyle, and carried :

"That a copy of the report of the visitors of the examinations of the Society of Apothecaries be forwarded to the Society for their consideration and remarks."

Sir Dominic Corrigan much regretted the time that had been wasted on the discussion. They rejected his resolution, which was that a copy of the report be forwarded to the licensing bodies, and now in the special case of the Apothecaries' Company they actually agree to his proposition.

Dr. A. Smith, although not objecting to the motion, wished to say a few words on the subject. On reading the report he found the questions put under the several heads scarcely applicable to junior students. Hereupon he proposed the following resolution :

"That the question No. 4 (under the head of "Midwifery, &c.," in Report), "what are the symptoms, diagnosis, and treatment of *tabes mesenterica*," is not a proper question in an examination on midwifery."

Dr. Apjohn reviewed the chemical questions, and considered them, with the exception of the second, important indeed, but would suggest to the Apothecaries' Company to make them more practicable. He was about to move a resolution on the subject when Dr. Parkes stated that he considered a general resolution on the subject of these examinations at a future time more suitable to the purpose than a special one. To this suggestion the Council unanimously agreed, and the motion before the Council was withdrawn. Previous to this time it had been ascertained that the examination on midwifery alluded to included that on the diseases of children also, which accounted for the question on which Dr. Smith's resolution had been based.

The Council then resumed.

In the case of a registered practitioner summoned to attend an inquiry,

It was moved by Sir Dominic Corrigan and seconded by Dr. Storrar :

"That the Council having been informed, through their solicitor that a registered person who had been summoned to appear before the Council on this day had shipped for Adelaide, the summons for his attendance could not be served upon him."

Amendment, moved by Dr. Macnamara, and seconded by Dr. Parkes :

"That the case of the registered person be referred to the Branch Council of that division of the kingdom in which he is registered ; and that it be investigated, and if necessary, be dealt with in accordance with sec. 14 of the Medical Act."

The original motion was carried.

The Council again resolved into a committee of the whole Council.

Moved by Dr. Parkes, seconded by Dr. Apjohn, and agreed to :

"That the reports of the visitors of the first and second conjoint examinations of the Royal Colleges of Physicians and Surgeons of Edinburgh, held in July, 1873, be forwarded to the two Royal Colleges for their consideration and remarks."

A protracted conversational (yet rather warm) discussion, in which Drs. Bennett, Wood, Haldane, Sharpey, the President, Professor Turner, Drs. Apjohn, Storrar, Macnamara, Fleming, Humphry, and Quain took part, preceded the disposal of



the motion, during which frequent references were made to the official report of the visitors of examination.

It was now moved by Dr. Bennett, and seconded by Mr. Quain :

"That the report of the visitors of examinations for the single qualification of the Royal College of Physicians and Surgeons of Edinburgh be forwarded to those bodies for their consideration and remarks."

After a like discussion the motion was agreed to.

Moved by Dr. Parkes, and seconded by Dr. Apjohn :

"That the report on the second conjoint examination of the Faculty of Physicians and Surgeons of Glasgow and of the Royal College of Physicians of Edinburgh, held on the 15th and 16th January, 1874, be forwarded to the Faculty and to the Royal College for their consideration and remarks."

Dr. Fleming expressed his disapprobation with the report, especially at page 84. The remarks therein were quite uncalled for, and the facts of the case did not warrant them.

Sir Wm. Gull considered the College, that Dr. Fleming represented highly complimented in the report.

Sir Dominic Corrigan believed that the portion of the report alluded to did convey an innuendo, and did bear a double meaning.

Dr. Parkes stated the paragraph was placed there without intention; there might be, however, examiners and examinations not so competent as on the occasion of this visit.

In the discussion that followed Dr. Haldane, the President, Drs. Humphry, Storrar, and Turner took part.

Sir Wm. Gull was of opinion that teachers should not be the examiners of the students they teach, and he felt that the Council might prospectively bear this in mind.

Dr. Storrar believed the best examiners had been teachers themselves. In the University, if an examiner found his own pupil before him as a candidate, he uniformly handed him over to another examiner.

Mr. Quain considered there was great art in examination. It was far more difficult to examine than to lecture. He considered that to expect from a pupil of two sessions a thorough knowledge of chemistry, physiology, and anatomy was quite out of the question.

Dr. Fleming now stated that the 12th of August being grouse-shooting day—and if Scotchman loved one thing in the world more than another it was grouse-shooting—on that day the visitors to the examinations attended, and the circumstance accounted for shortcoming—if they really had any.

The resolution was carried.

Moved by Dr. A. Smith, seconded by Sir William Gull, and agreed to :

"That the report of the visitors to inspect the first and second examinations of candidates for the diploma of the Faculty of Physicians and Surgeons of Glasgow be forwarded to the Faculty for their consideration and remarks."

Dr. Bennett submitted to the Council some remarks on his visit (in connection with Mr. Busk) to the examinations of the Royal Colleges at Edinburgh. In the course of the discussion which followed it was ascertained that the report did not state the results of the examinations, nor had mention been made by the visitors in the report of the passed or the rejected. In page 79 of the Visitors' Report of Examinations it is stated "The answers to these questions we did not receive."

During a discussion it was elicited that the papers were not refused, but that Dr. Bennett and his colleague did not find amongst the papers received from the College certain answers to questions that appear in the report. Dr. Smith inquired if these papers were refused. Dr. Bennett replied in the negative. Dr. A. Wood considered the note in the report seemed to cast a slur on the College, although, as the College has been always most willing to submit the result of their examinations to the Council, he considered Dr. Bennett and his colleague should have written to the authorities of the College on the subject. Dr. Bennett felt justified in taking the whole blame of the matter, the blame did not rest with the College.

Dr. Wood was dissatisfied also that the number of passed and rejected candidates were not mentioned in the report.

Mr. Quain considered we ought to be slow to shut men out of the profession by rejecting them at a first examination. Out of every 600 that went in for a first examination not more than 400 ever went in for the fourth, and the consequence was that people of small means could not get practitioners at a price, and had to seek gratuitous medical aid.

It was now moved by Dr. Quain and seconded by Dr. Humphry :—

"That a copy of the reports of the visitors to the several examinations of the University of Glasgow be forwarded to the University for its consideration and remarks."

After some remarks by Dr. A. Smith, Dr. Allen Thomson rose and reviewed the report issued by the visitors of examination. He explained the mode of examination, the number of questions given to each candidate, and the number of marks necessary to constitute a "pass mark." He agreed with Mr. Quain, that the difficulty of teaching was greater than of lecturing, and he also held that there was great difficulty in, and experience required by the gentlemen deputed to act as visitors of examination. On behalf of his colleagues, he might say they were prepared to entertain any suggestions the General Council might favour them with.

Professor Turner referred to the second paragraph in page 123 of the Report, and stated that it did not apply to the case of the University of Edinburgh. In the case of the University of Edinburgh theses have to be submitted, and in some cases candidates are rejected, and do not receive their M.D. qualification on account of the imperfection of the thesis productions. In the University of Edinburgh very many subjects are required to be known not insisted on by other colleges—the examination is most testing—written, *viva voce*, and practical.

The President reviewed the remarks made by Dr. Allen Thomson, and Professor Turner, and then explained the mode adopted at Cambridge and London.

Sir William Gull stated that for four and twenty years he was a teacher at Guy's; it was a sheer pretence to put down a standard on figures. One of the best pupils he ever had was brought to the bed-side of a patient to write out the clinical history of a case; it was a case of hysteria in a woman: his report was correct, but he got but the second place. In the University of London clinical examinations were introduced at an early date, and at Guy's Hospital before also.

The President explained that the University of Cambridge examined clinically as early as the year 1842, and gave a particular instance where such examination had taken place at about that date.

Dr. A. Smith now moved, and Professor Turner seconded :

"That the reports of visitations of the examinations for 'Letters Testimonial' of the Royal College of Surgeons in Ireland be forwarded to that College."

Dr. Macnamara, on behalf of the College he represented, returned his sincere thanks to Dr. Smith and to Mr. Henry Power for their impartial report. He entered into a concise and eloquent review of several portions of the report, taking up the paragraphs *seriatim*, and making special allusion to the operations on the dead subject performed by the candidates. He also replied to the complaint made by the visitors of examination (*vide* report), which stated the written papers of candidates were denied to them. He explained that the papers of candidates for the licence of the College, as a rule, were uniformly torn up, and thus destroyed immediately after being read by the examiners. In the cases of candidates for the Fellowship, the reverse obtains. He concluded his most able address by pointing the attention of the Council to correspondence on the subject which passed between the authorities of his College and visitors of examination, as *vide* Report, pages 145, 146.

A discussion on the subject followed, in which Drs. Wood, Fleming, Parkes and others took part.

Sir William Gull now rose, and stated that, having read over the report of the visitors of examination, he considered the Irish College of Surgeons was just then in a very unsatisfactory state. Several paragraphs in the report were such as to question whether a special vote of censure ought not to be passed; they were there to do their duty, and he for one would perform it. Sir William Gull having read to the Council paragraphs of the report, moved the following amendment to the former resolution. This amendment was seconded by Dr. Parkes :

"That the Council has had its attention drawn to the many sources of imperfections in the examinations conducted for Letters Testimonial of the Royal College of Surgeons of Ireland, and trust that the accompanying reports of the visitors at those examinations will receive serious attention on the part of the authorities of the Royal College. And that in any future visitation the written papers of the candidates may be preserved and submitted without restriction to the visitors."



Dr. Smith bore testimony to the facts in the report submitted by himself and his colleague.

Dr. Macnamara complained of the fact of Sir W. Gull having skipped over paragraphs in the report favourable to the Irish College, but placed in a strong light before the Council paragraphs unfavourable to the Irish College of Surgeons. He again explained to the Council the opportunities offered by the College to the visitors to see the papers alluded to, as he before stated. One of the informalities complained of arose from the visitors to examinations having arrived a day after a portion of the examinations of candidates had been proceeded with. Dr. Macnamara read to the Council several paragraphs of the report, which went to show that Sir William Gull's amendment was entirely uncalled for, being based on wrong deductions, drawn by him from the report of visitors to examinations, as the report clearly and distinctly showed. No positive good could or would arise from such a proceeding as Sir William Gull originated. The Council of the College of Surgeons in Ireland knew their duties to this Council, to the profession, and to the public, and from the beginning had determined to do it fully and conscientiously. The visitors of examination state all this in their report, and it is quite out of his power to comprehend the object aimed at by the amendment proposed.

Sir Dominic Corrigan rose, and felt convinced the Council were drifting into the position he had seen from the first, that is, they were casting allegations against one of the licensing bodies. Anything like this should not be attempted, and decidedly not until first shall be received by the Council reports from all the Colleges. Charges were now made against the College of Surgeons in Ireland, and he contended that no resolution should be passed, but if it were yet determined on, the answer to the charges made against that body should be first received.

The amendment was carried, and put as a substantive motion.

Thus moved by Sir William Gull and seconded by Dr. Parkes :

"That reports of the visitors on the examinations of the Royal College of Surgeons of Ireland be forwarded to the College for its consideration and remarks.

"The Council has had its attention drawn to the many sources of imperfections in the examinations ; and trust that the accompanying reports of the visitors will receive serious consideration on the part of the authorities of the Royal College, and that in any future visitation, the written papers of the candidates may be preserved and submitted without restriction to the visitors for perusal."

Thus ended Friday's proceedings.

#### SATURDAY.

Previous to the adjournment of the Council on Friday evening, an arrangement was entered into for this day's sitting. It was to commence at one o'clock and to close at four o'clock. By the time the hands of the unpretentious-looking dial, the mechanical representative of stern old Time, placed in a puncture made in the wall on the left side of the President, and exactly above and behind the seat Sir Dominic Corrigan so efficiently occupies, pointed to the hour fixed on, the President and nearly all the members of the Council were in their places, and the proceedings of that august body were resumed.

The minutes of Friday's sitting having been read, revised, and agreed to, Dr. Aquilla Smith invited the attention of the Council to the remarks of Mr. Quain on the standard of medical education required by the licensing bodies at the present time, and moved :

"That the Council resolve itself into a Committee of the whole Council."

Dr. Storrar seconded the motion.

The adjourned consideration was resumed of the reports of visitations, and the following motion by Dr. A. Smith, seconded by Sir William Gull, was submitted to the Council :

"That the report of the visitors to inspect the first and second examinations of candidates for the diploma of the Faculty of Physicians and Surgeons of Glasgow be forwarded to the Faculty for their consideration and remarks."

Dr. Macnamara considered the report of the visitors of examination on the Faculty of Physicians and Surgeons,

Glasgow, a most important one. The mode by which candidates for that qualification were examined was extremely faulty, and required to be at once rectified. That qualification was regarded as a surgical qualification more than as a medical one, yet from an examination of the report, it would appear that the candidates were not examined on the dead subject, no surgical instruments were exhibited before them in order to test their knowledge of them ; no pathological specimens were shown, nor, still less, was there any surgical test insisted on by the examiners. A five minutes' examination on physiology too could not by any possibility be considered a sufficient one. At one time the Irish College of Surgeons had a *viva voce* examination only, but experience proved that many candidates for the licence, who had never ungloved their hands within the precincts of a dissecting-room, presented themselves before the examiners, and in some cases apparently displayed sufficient knowledge to satisfy the examiners of the time as to their fitness to receive the licence. Now, however, all that has been changed. The candidate for the diploma of the Irish College of Surgeons is obliged to handle his scalpel, and to show his familiarity with and his dexterity in using it. On the dead subject his operative powers are tested by this method, and the examiners are at once able to see and to note the full value of the candidate. Dr. Macnamara bore testimony to the great improvements made in the method of examination and the education of students. In justice to the College he represents, to the Council, and to himself, he could not permit the report of the visitors of examination to pass without calling attention to the several matters on which he had dwelt, and he sincerely hoped that for the cause of medical education, and for the credit of the licensing body itself, he hoped that in future a better mode of examination would be pursued, and the knowledge of candidates tested in the practice of surgery. With regard to the relative value of *viva voce* and written questions, the former he believed to be the better mode of testing the knowledge of candidates ; set questions were often written, he feared, not so much to be answered as to make a display, and to show the erudition of the examiner. Then again, he was sorry to say that candidates rejected at one college very often received the diploma of some other within a few days of such rejection. Until a measure be adopted to check this state of affairs he believed the Council would ever find themselves engaged in the discharge of a useless and a fruitless task.

Dr. Macnamara illustrated his remarks on this part of his subject by giving the case of a candidate who had been rejected on three occasions by the Irish College of Surgeons, and whose name appeared in the registration roll as having obtained double qualifications within a few days from the date of his rejection. In another case, a student received a Scotch diploma immediately after his rejection by the Irish College, and, remarkable to relate, on the registration roll his name was entered as if the candidate obtained the licence of the very licensing body that rejected him. In reply to several members of Council, Dr. Macnamara stated that he did not wish to give names, but the facts were as stated, and if the Council, after giving the cases some consideration, still persisted in pressing him for these names he would be prepared to give them.

Sir Dominic Corrigan regretted extremely the second case had been mentioned ; long, long ago the irregularity in registration alluded to had been explained away ; it was simply a clerical error performed by those whose duty it is to make the record in those cases. The gentleman alluded to deserved, and should have obtained from the Irish College of Surgeons, the qualification he sought, and which was a mere formality, nevertheless, necessary in order to meet a contingency. Not having obtained it from the Irish College, he sought it, and secured it too, where best he might. He was a most distinguished pupil. (Sir Dominic Corrigan here entered into minute particulars of the case, giving names and stating circumstances we do not think, in justice to the gentleman alluded to, we should reproduce.)

Dr. Apjohn felt perfectly justified in stating to the Council the gentleman alluded to was a remarkably distinguished student.

In the discussion that followed, the President, Drs. Storrar, Bennett, Parkes, Smith, and others took part, at the close of which Sir Dominic Corrigan again rose and said that some persons were of opinion that the names of rejected candidates ought to be sent to the nineteen licensing bodies ; for his part he could not agree to this ; were the Council to

entertain the matter for a moment they should be lowering themselves to the position of insurance companies, who send the names of rejected applicants for insurance to each other.

Dr. Wood energetically defended the Scotch College against the charge made upon them. In all cases where candidates came before the licensing bodies there such candidates received from the examiners their just deserts. Candidates from Ireland and from other places came before the Scotch examiners and received from them their kind, impartial, deliberate, and just consideration which in very many instances they should have received at home, and which probably had been denied them there.

Professor Turner wished to know if the Irish College of Surgeons, as a rule, asked the candidates coming up for examination whether they had been previously rejected by any other college.

Dr. Fleming defended the Faculty of Physicians and Surgeons of Glasgow. He referred to page 99 of the Report of Visitors of Examination. For his part he was aware of cases where candidates rejected at Glasgow obtained Dublin diplomas. Dr. Fleming asked the attention of the Council to several sections of the Report in order to show the extent and searching ordeal adopted by the Faculty of Physicians and Surgeons of Glasgow to test the extent of medical and surgical knowledge candidates for the qualification should possess to entitle them to receive it.

#### MONDAY, JULY 13TH.

Sir Dominic Corrigan having been summoned by a committee upon Mr. Errington's Bill at the House of Commons was unable to be present at the Council meeting at the time our reporter left. The adjourned consideration of reports of visitations of examinations was therefore again adjourned, it being understood that Sir Dominic was anxious to make some remarks with reference to the Queen's University before the reports passed the Council.

The returns from the Medical Department of the Army, dated respectively September 8th, 1873, and March 4th, 1874, was the first business of the day. The following are the official returns :—

STATEMENT of the Degrees, Diplomas, and Licences of the Candidates for Commissions in the Medical Department of the Army, who in August last presented themselves for Examination, showing the number that passed, and did not pass, distinguishing the Qualifications, both Medical and Surgical, under the several Licensing Bodies, dated September 3rd, 1873.

	No. of Qualifications.		
	Total.	No. passed.	No. failed.
Royal College of Physicians, London	2	2	...
Ditto Surgeons, England	4	4	...
The Society of Apothecaries, London...	1	1	...
Rl. College of Physicians, Edinburgh	2	2	...
Ditto Surgeons, Edinburgh ..	2	2	...
K. & Q. Coll. of Physicians, Ireland	3	3	...
Royal College of Surgeons, Ireland ...	4	3	1
Apothecaries' Hall, Dublin .....	1	1	...
Queen's University of Ireland .....	2	2	...
University of Aberdeen .....	2	2	...
Trinity College, Dublin.....	1	...	1
University of Aberdeen M.B.	2	2	...
Queen's University of Ireland M.D.	2	2	...
Rl. Col. Surgeons, Edinburgh M.D.	1	1	...
Trinity College, Dublin M.B.	2	2	...
University of Edinburgh M.Ch.	1	1	...
Ditto ditto M.B.	1	1	...
<b>Total .....</b>	<b>33</b>	<b>31</b>	<b>2</b>

The total number of candidates was 15, 11 of whom succeeded in obtaining appointments ; 3 succeeded in examination, but not in obtaining appointments, there being only 11 vacancies ; 1 was rejected from the R.C.S.I., he being deficient in surgery.

The following are the official returns from the Navy Medical Department :—

STATEMENT of the Degrees, Diplomas, and Licences of the Candidates for Commissions in the Medical Department of the Army, who in February last presented themselves for Examination, showing the number that passed, and did not pass, distinguishing the Qualifications, both Medical and Surgical, under the several Licensing Bodies, dated March 4th, 1874.

	No. of Qualifications.		
	Total.	No. passed.	No. failed.
Royal College of Surgeons, Ireland ...	8	8	...
K. & Q. Coll. of Physicians, Ireland	5	5	...
Royal College of Surgeons, Edinburgh	4	4	...
Ditto Physicians, Edinburgh	3	3	...
Royal College of Surgeons, England...	2	2	...
Queen's University, Ireland .....	4	4	...
University of Dublin .....	1	1	...
Apothecaries' Hall, Dublin .....	1	1	...
University of Edinburgh M.Ch.	1	1	...
Ditto ditto M.B.	2	2	...
Queen's University of Ireland M.D.	5	5	...
University of Dublin M.B.	2	2	...
<b>Total .....</b>	<b>38</b>	<b>38</b>	<b>...</b>

Of the total number of candidates (18), all passed ; 16 succeeded in obtaining appointments ; and 2 succeeded in examination, but not in obtaining appointments, there being only 16 vacancies.

It was then moved by Dr. Apjohn, seconded by Dr. Parkes, and carried—

“That the returns from the Army Medical Department be entered on the minutes, and that the thanks of the Council be forwarded to the Directors General for the same.”

Dr. Andrew Wood wished to congratulate the Council upon the improved state of medical education. From the reports which were now presented from the two departments by Her Majesty's Service it would be seen that out of 15 candidates for Army medical appointments, only one was rejected ; whilst of the 18 candidates for the Navy, all passed. The Council concurred in Dr. Wood's expression.

The correspondence of Dr. Mackern, of Long Eaton, near Nottingham, complaining of the illicit practices of a certain quack, and of a certain duly qualified practitioner lending his name to quackery, was referred to the Branch Council of England on the motion of Dr. Macnamara.

The case of John Permewan, who had been some time since struck off the Register, but who now protested under advice of counsel against such an act, sought, through the Royal College of Physicians of Edinburgh, reinstatement to his former position as a member of the medical profession. The correspondence was simply read, the Council passing no opinion thereon.

A letter from the Registrar of the University of London, enclosing a communication from the Home Office respecting conjoint examination, was then read, and on the motion of Dr. Storrar, seconded by Sir Wm. Gull, the communications were ordered to be inserted on the minutes.

The motion of Dr. Aquilla Smith

“That a committee be appointed to prepare a new edition of the British Pharmacopoeia, to be ready for publication in January, 1877,” was negatived, as was also a motion “that the publication of the Annual List of Registered Medical Students be discontinued.” With reference, however, to the latter, the President remarked that Dr. Smith's inquiries showed clearly that the List was capable of improvement, and should be published earlier in the year, so as to obviate the objections raised by Dr. Smith.

A petition from Mr. John Joseph Ray, Licentiate of the Colleges of Physicians and Surgeons of Ireland, for permission to alter his name on the Medical Register, by the addition of an “e” to his name, was the occasion of a slight passage of arms between Dr. Andrew Wood and the representatives of the colleges concerned. The matter was afterwards referred to the Branch Council for Ireland, to satisfy the Council of the identity of the applicant before acceding to his request, the question resolving itself into a change of name, and not an error of the College at which he registered.

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# The Medical Press and Circular.

**"SALUS POPULI SUPREMA LEX."****WEDNESDAY, JULY 15, 1874.**

## GENERAL MEDICAL COUNCIL.

THE Session of the Medical Council for 1874 opened last Thursday, and the debates will probably continue to the end of the week. We give in this number a report of the proceedings up to the time of going to press, and here we propose merely to offer a few comments on some of the points that have been discussed.

First of all, we may congratulate the profession that Dr. Paget has consented to act as President for this session. He has filled the chair with so much ability and dignity that everyone has felt satisfaction, and we trust his successor may be equally fortunate in upholding the honour of the office. Who that successor shall be we hope the Council will decide at the close of the present session, so that he may have full time to prepare for the work of presiding during the long interval before the next sitting. We have heard rumours, like others, respecting the probable choice; but we do not deem it our business to repeat them, still less to offer suggestions. The Council has always given satisfaction in its choice, and will of course act independently.

In the course of his address, Dr. Paget paid a well-deserved compliment to the former members who have been replaced; and though we miss them much, like the President, we are prepared to find the new members bring vigour and wide information to the discussions.

Dr. Paget also congratulated the Council on the new premises in which the meeting for 1874 was held. Next year it will give more satisfaction, for it is not nearly completed. We hope the damp walls may not injure the health of members; but verily there seemed to us a serious risk of this calamity.

The most important business of all was perhaps the visitation of examinations. The report of the visitors filled a considerable volume, and will furnish matter for comment for a considerable period. Nothing can be much clearer than that the standard is very unequal. Of course we all knew this. It is natural that more than a score of corporations should conduct their examinations variously. There may be good and bad points in all the plans; but the cry for conjoint boards has been greatly supported by the desire to have a fair standard every-

where prevailing. This is the great purpose for which the public demands examinations, and certainly ought not to be lost sight of.

The returns from the army are very satisfactory, and strongly support the President's statement that great improvement has of late years taken place in medical education, for which the Council may fairly claim some credit, though we believe there has been a desire on the part of all the boards to stimulate progress, and medical teachers in all our schools have been zealous in the good cause.

We have already spoken of Sir D. Corrigan's new Bill. It would add one more to the already too numerous examining boards. If we are to have a State Board at all it ought to be passed first of all, but the corporations seem afraid of that. Assuredly to place it as Sir Dominic does, after a double qualification has been secured, is "to put the cart before the horse."

Dr. Aquilla Smith's proposal for a new Pharmacopœia at the end of a decade from the former issue is well-timed and important, and we were glad he suggested that the Pharmaceutical Society should be invited to co-operate. There can be no doubt far too much money has been squandered on the Pharmacopœia, and the cost of the chemical department has been inexplicable. Years ago we pointed out the extravagant manner in which this work had been accomplished, but it was worth a good deal to secure a national codex. The wretched little volume of additions issued this year appears to have been produced in the same costly manner, and is practically useless. There are scarcely any formulæ in it worth printing, and it is obviously useless to be always tinkering at a work of this kind. We hope the next Pharmacopœia may cost little and suffice for a longer period. The discovery of a new drug does not render such a work obsolete, nor require additions to be printed. If the Council were determined to print such additions, they would have conferred some benefit by printing them in such a way that each could have been bound into the old copies at its proper place; but really no one wanted the bantling of 1874, and we look upon its cost as so much waste.

The publication of the List of Medical Students is of little use; but there are occasions on which it is desirable to know whether persons so describing themselves have been registered. The Council has not taken pains to circulate the List, nor has it done all it might to make its List the only one. The London College of Surgeons still compels students to go to them. Students should refuse.

## THE EXAMINATIONS OF THE IRISH COLLEGE OF SURGEONS.

THE examinations of the London Apothecaries' Hall, the Glasgow and Edinburgh corporations, the Irish College of Surgeons, and the Queen's University in Ireland have come under the criticism of the visitors appointed last year by the General Medical Council, and the result of their observation of the methods adopted by these bodies was laid before the Medical Council last week in the form of a volume of more than 250 pages, a much more valuable contribution to medico-educational literature than any which the predecessors of the visitors have given to the

profession. The important portion of the contents of these voluminous reports may be easily epitomised, because five-sixths of the entire book is occupied with the examination questions and the replies of candidates, and with a description of the method of examination pursued by each body. We pass, for the present, over the verdict pronounced upon the Scotch corporations and the Glasgow University in order to refer to the report upon the examinations of the Irish College of Surgeons and the Queen's University in Ireland, and in that which refers to the former of these bodies we find abundant subject for the consideration not only of the Fellows of that College but of the surgical profession in Ireland.

It has been a tradition of half a century, in which Irish surgeons have maintained an unwavering belief, that the examinations of the Irish College of Surgeons have been and are more stringent and comprehensive than those of other bodies, and that the College—by a praiseworthy fastidiousness and by a meritorious sacrifice of financial interest—has thus maintained in the Irish School of Surgery the high standard of excellence which its previous achievements had won for it. It will be a rude shock to this belief in the pre-eminence of surgical education to learn that the visitors of the Medical Council have unqualifiedly condemned the system of examination still in force in the College as utterly insufficient both in time and method for the proper testing of candidates.

The visitors initiate their observations by the following remark :—

“The examination we were directed to attend was stated to commence on Tuesday, 13th January, 1874, at 3 p.m. We found, however, to our regret that an important part of the examination, that namely in dissection, had taken place on the previous day. We were informed that every student had been required to dissect for about half an hour, and on examining the subject we found that the vessels, nerves, and muscles of the axillary space on both sides, as well as those of the right side of the neck, had been fairly made out, and that the skin and superficial fascia of the inguinal region and upper part of both thighs had been reflected.

“We were given to understand that the performance of actual dissection by the candidates was an innovation, and was preparatory to certain improvements in the examination about to be adopted by the Council; but that the candidates had always been expected to recognise the parts displayed in recent dissections and in moist preparations.”

We conceive that the visitors had either been misinformed or had misapprehended the statement as set forth in the foregoing paragraph, for we are quite aware that until within the last few months the present examination by dissection was brought into operation, the candidate had not been subjected to any direct practical test whatever as to his anatomical knowledge.

Having minutely described the method of examination and of registering the marks, the visitors say :—

“In reviewing the conduct of this examination, several points appear to be worthy of comment. In the first place, we have no hesitation in saying that the time occupied in the examination should be considerably extended. A sufficient interval of time should intervene between the written and the oral examination to allow the examiners to read over carefully, and to assign a definite number of marks to the written answers. On the present system this is impracticable, since the oral commences immediately after the written examination is completed, and any time spent by the examiner in reading over the written answers must necessarily be deducted

from the time that should be spent on the oral examination; a matter of no small importance when only fifteen minutes is allowed for the latter.

“It is to be observed that the candidates who present themselves for this examination are students who have completed their *third* year of attendance upon lectures and dissection. They may, therefore, reasonably be required to give evidence of the possession of a thorough practical knowledge of anatomy, and of something more than mere elementary knowledge of physiology.

“We are of opinion that two written questions on anatomy and one on physiology do not afford a sufficiently searching test of a candidate's knowledge of these important subjects, even when supplemented by an oral examination of thirty minutes by two examiners, and would recommend that a more systematic method of examination should be adopted, several questions being given on each subject, and the candidates being allowed a sufficient time to reply to them.

“In regard to the oral examination, the questions were practical and good, and such as every well educated student should have been able to answer promptly and fully, whilst much kindly consideration was shown to the candidates; but we cannot avoid stating that, in our opinion, the quarter of an hour system of examination at successive tables is not well adapted for adequately testing the acquirements of the candidate, especially if he be astute, timid, or obtuse. The candidate needs only to be slow in answering, and it is impossible for the examiner to go much beyond the surface in the few questions he has time to put, and no opportunity is afforded of ascertaining, by pressing the questions, whether the candidate's knowledge is the result of a cramming system, or whether he really understands what he has read and seen.”

The visitors then refer to what is known as the “second half”—the surgical, or passing, portions of the examination :—

“In reporting upon the examination in operative surgery, to call attention to the advisability of the examiners submitting their questions to each other, or to the chairman, prior to the examination.

“In the present instance it will be seen that out of the five operations required to be performed, four were amputations. In three out of the four the candidates selected the circular method, and as they were all called in at the same time, it was easy for the less informed candidates to obtain hints and suggestions for their operations from the proceedings of others, and the incidental remarks of the examiners.

“We are of opinion that in addition to the advantage of preventing the improper acquirement of knowledge in this way, confusion would be avoided, and the examination would be altogether more satisfactory if one student only were called in at a time.

“On the present occasion, three candidates were operating simultaneously on the same subject.

“In one or two instances various questions were put to the candidates sufficiently testing their knowledge of operative surgery, but in other instances we are of opinion that this part of the examination was insufficient, and the operations the candidates were called upon to perform were not, in all instances, completed. We noticed, for example, that the candidates were not called upon to take up and tie the vessels or adopt any other measure by which hæmorrhage might be arrested, nor were they required to dress the stumps.”

The visitors then proceed to refer to the clinical examinations, upon which they express the following opinions :—

“No questions were asked as to the various methods of treatment that might be adopted, nor as to the result that might be anticipated, though all the cases seemed to us to afford a fair opening for such inquiries.

"No bandaging was required, nor were the candidates called upon to show the mode in which fractures should be put up or dislocations reduced.

"In these respects there can be no doubt that this part of the examination could be made very much more searching and complete, whilst by their omission the most important means at the disposal of the examiner for ascertaining the extent and accuracy of the practical knowledge possessed by the candidate and of the attention he has paid to his hospital studies were lost."

The visitors sum up their impression of the whole examination for the Letters Testimonial in the following words :—

"In conclusion, we may remark that the good points of this examination are sufficiently obvious. If efficiently conducted, it is difficult to conceive that any candidate could pass who had not acquired a thorough knowledge of the foundations of professional attainments.

"Its defects, on the other hand, as at present conducted, are no less patent; and we have the less hesitation in referring to them since we have reason for believing that they are recognised by several members of the Council, and are likely to be in part removed by changes about to be adopted.

"No one of the branches of the examination appeared to us to be fully carried out, and this essentially results from the circumstance that, notwithstanding three days are nominally devoted to it, the whole examination is conducted in too hurried a manner. The students are hurried in writing their replies to the questions in the written examinations, and the examiners are hurried in reading them; whilst insufficient time is devoted to the clinical and operative parts of the examination, in neither of which is more than a quarter of an hour devoted to the examination of each candidate."

We are incapacitated by the pressure upon our space, and the late hour at which the report of the visitors reached us, from commenting upon their verdict as fully as its importance deserves.

It may be satisfactory, however, to them and to the General Medical Council to be assured that these strictures upon the examination of the Irish College of Surgeons will be pronounced by the one voice of those who are acquainted with the system to be well deserved. It is a matter of notoriety that the examination, as at present conducted, is incapable of excluding an ignorant candidate, and unsafe for a well-educated and competent student. Nay, more! it is notorious that candidates who have proved the high order of their talents and education have been more than once rejected at the Irish College of Surgeons in consequence of the meagreness of the opportunity afforded them to prove their competency, while students with little industry and less knowledge have been permitted to receive the licence of the College.

#### MISS JEX-BLAKE AND HER EXAMINERS.

It is a remarkable fact, to which we have the almost unanimous testimony of those gentlemen who have, as the phrase runs, "been referred to their studies," that no student ever suffers plucking because of his ignorance or stupidity.

We know by the earnest assurance from each that he is the unhappy victim of uncontrollable circumstances, or of a foul conspiracy—that he has succumbed either to his adverse fortune or to the atrocious malignity or gross incompetency of the examiners, or to the flagrant faults

of the system of examination, but with the disastrous event neither idleness nor incapability have anything to do.

It seems that the medical sisterhood of plucked students are no more ready than the Bob Sawyers of the day to acknowledge that their sentence is just, and that their idleness righteously punished, for we find that their higher intelligence is not superior to the nurture of the same delusive ideas which animates the unlucky "sawbones" under similar circumstances.

Miss Jex-Blake has not been as happy in satisfying the examiners of the University of Edinburgh as she may consider herself to have been in persuading the public that she is the persecuted advocate of a holy cause. She has been—let us whisper low as we utter the ignominious participle—"stuck," and, what is worse, the melancholy truth has not been permitted to remain unnoticed, for an ardent friend was good enough to assure the public that she would have passed but that her public duty as an agitator had made the preparation for her examination "a secondary consideration." But Miss Jex-Blake was not of the stuff to suffer defeat and tamely apologise. She writes to the *Times*, roundly asserting that, in her opinion, her preparation was "thoroughly adequate," but that as the examiners could not be punished for her "alleged" failure she had—with great magnanimity—consented to allow the matter to rest. This letter elicited a reply from the examiners briefly to the effect that the lady's papers were unanimously voted to be "extremely defective on every subject," and Professor Huxley, to whom the papers were shown by a friend of Miss Jex-Blake, distinctly and unhesitatingly confirmed this verdict.

It has been already abundantly evident that discretion is not the better part of Miss Blake's valour, and in this transaction both she and her friends have manifested a degree of imprudence and undiscipline of temper which does not testify favourably to their self-control. There is no significance whatever in the rejection of a female medical student, more than that of her male analogue, and no one need experience surprise or found any conclusion upon one failure of the sort; but there really is in the thirst for newspaper publicity of Miss Jex-Blake and her friend an eloquent illustration of that absence of discretion and hastiness of judgment which is vulgarly attributed to Miss Blake's sex, and which cannot be considered a desirable attribute in anyone who seeks for success in the thoughtful and solemn rôle of a physician.

#### Royal College of Surgeons of England.

THE annual meeting of the Council of the College of Surgeons was held on Thursday, the 9th inst, when the newly-elected councillors took their seats. The annual election of officers took place, when Mr. Le Gros Clark was elected President, and Sir James Paget, Bart., and Mr. Prescott Hewett, Vice-Presidents for the ensuing year. Mr. Henry Lee was elected Professor of Surgery and Pathology, Mr. W. K. Parker Professor of Comparative Anatomy and Physiology, and Mr. Erasmus Wilson was re-elected Professor of Dermatology.

## Literature.

## BAZAAR MEDICINES. (a)

DR. WARING has been long and favourably known to the profession by his various contributions to medical literature, especially to therapeutics, and the highest compliment that could be paid to his abilities in this department was done when he was appointed editor of the Indian Pharmacopœia—a work of considerable research, and possessing information that could only be found elsewhere with much difficulty.

From what we gather from the preface, the present work would appear to have been written more for missionaries than the profession, and consequently we shall be guided in our criticism of the work rather by the uses it is intended for them than as a strict and accurate description of all those bazaar medicines which are daily prescribed by Indian medical officers, and approved of and set down in the Bengal medical regulations. The "introduction" possesses no feature of novelty—it is the old stereotyped advice and directions which have been written in *secula seculorum* in every medicine-chest companion. Part I. contains an alphabetical list of bazaar medicines and Indian medical plants, together with their uses. The only drug amongst the A's is Atis, or Atees, which we think English practitioners might try; it is inexpensive, and has in our hands proved efficacious both in intermittent and other periodical fevers.

The next important drug is the Bael Fruit, and certainly we think a more extended trial of it in England would lead to its becoming a fashionable medicine. We have tested it on a very large scale in India, especially in diarrhœa and the earlier stages of dysentery, with the happiest results, and practitioners in England who have much to do with Anglo-Indians will find this medicine or fruit valuable in chronic dysentery and hæmorrhoids; and lastly, as Dr. Waring truthfully observes, "in irregularity of the bowels, presenting alternations of diarrhœa and constipation, taken early in the morning, often exercises a most beneficial effect." In this section we notice some valuable native drugs are not alluded to. "Chaulmûgra" is a medicine of such importance in leprosy that we are surprised to find so very meagre a description, especially as missionaries would be likely to see more of this distressing malady than medical men; and no allusion whatever is made to Dr. F. T. Mouat's valuable paper on this drug.

"Chiretta," Dr. Waring says, "is a good bitter tonic, and, when procurable, renders the practitioner in India independent of imported articles of the same class." In our hands chiretta has proved something more than this, as we have found it to have an almost specific action on the liver, especially in the engorged liver of the newly-arrived European, in the milder forms of congestion so commonly met with in Anglo-Indians who have long resided in notoriously malarious districts, and especially have we regarded it as a *sine quâ non* when treating Anglo-Indians who have retired from the service, and who may be suffering from atonic dyspepsia, &c. We trust Dr. Waring's allusion to the probability of not being able to obtain this drug is imaginative rather than real, as in our day every bazaar in India was well supplied with it.

Kala-Dana, or black seed, is an excellent purgative, and when in India, we prescribed it both for Europeans and natives, and found it in all respects as safe and certain a purgative as jalap.

Kamela has (as the author correctly observes) attained considerable repute as a remedy for tape-worm. When prescribing it for natives we have met with a fair percentage of success, but not sufficient to regard its action as specific, and from clinical observation were soon led to discard it for Europeans, substituting for it oil of male

fern, which in our hands never failed to bring away the worm entire.

Mudar, which bears the same relation to ipecacuanha that Kala-Dana does to jalap, is well worth a trial, and we should be glad to find the Dreadnought Hospital trying some of the remedies we have incidentally mentioned, and thus giving this institution more of the tropical character it obtained in the days of Dr. Geo. Budd.

If space permitted, we might perhaps draw the attention of our readers to some few other native drugs; but we have said enough to show the general character of this part of the work. It is good and clear, but the descriptions are too short; many native drugs of acknowledged value are omitted; the bazaar prices are not given, and all, or nearly all, reference to contemporary writers is omitted.

Part II. is an index of diseases, which will prove useful to missionaries.

Appendix A contains directions for restoring the apparently dead from drowning. All the natives that we have ever met, with one solitary exception, could swim.

Appendix B does not give a practical interpretation to the motto "*Audi alteram partem*," in that it merely contains "reprinted by permission from Dr. Fayer's splendid work," a summary of his treatment of persons bitten by venomous snakes without the slightest allusion to the writings, experiments, and discoveries of Dr. Halford, of Australia, and the very excellent little pamphlet of Dr. Butter, late of Bengal.

In conclusion, we have no doubt for missionaries Dr. Waring's book will prove useful, and we trust that by doing so they will hereafter confine themselves to their sacred calling rather than add another to the list of wars they have already created in Burmah, New Zealand, and Abyssinia.

## DOMETT STONE'S THERAPEUTICS. (a)

THIS is a book which will interest some readers very much, and others very little; it consists of the opinions of leading authorities, British and foreign, on the treatment of various diseases, arranged alphabetically. The man of extensive reading may not care much to look over a summary of this kind, but younger practitioners who have not read widely nor witnessed the practice of different schools will be pleased with the judicious selection of medical opinions compiled by Dr. Stone, who has had experience in selecting when editor of the lately discontinued Half-Yearly Abstract. In this volume he has applied that experience to collect from books of permanent value the salient points of treatment advised by their authors. He does this with much skill, and though in reading a good deal of it we met with no opinion with which we were unacquainted, we are convinced that there are many practitioners who will be glad to compare the views of authorities, and they may safely trust to Dr. Stone's book, for we find it accurate. Then there are a good many references, and perhaps these might be advantageously increased. Dr. Stone may also, perhaps, in future make an effort to trace the original source of some of the recommendations. One thing comes out very strongly in this book—the diversity of opinion amongst able men in reference to the value of remedies. A casual reader taking it up for half an hour may well exclaim "Who shall decide when doctors disagree?"

## THOROWGOOD'S MATERIA MEDICA. (b)

THIS is the third volume of a new series of small text-books, of which the two former have already been reviewed in our columns, and of which it is a worthy companion. It is no small praise to say that Dr. Thorowgood has

(a) "An Epitome of Therapeutics." By W. Domett Stone, M.D., F.R.C.S. London: Smith, Elder, and Co. 1874.  
(b) "The Student's Guide to Materia Medica." By J. C. Thorowgood, M.D., Physician to Victoria Park Hospital; Lecturer on Materia Medica at the Middlesex Hospital. London: J. and A. Churchill. 1874.

(a) "Bazaar Medicines." By E. J. Waring, M.D. London: J. and A. Churchill. 1874.



produced a manual of materia medica that may vie with Dr. Fenwick's "Diagnosis" in usefulness to the student. There are many works on materia medica of varying degrees of merit and of various sizes. Judging this by the intention for which it is produced, none is superior. It presupposes the possession by the student of the British Pharmacopœia, and therefore does not repeat the formulæ and directions of the official volume, but it gives an account of the chemical composition of medicines, the processes by which they are prepared, their reactions, uses, and doses.

The additions to the Pharmacopœia published this year are also briefly noticed, as well as the process of volumetric analysis. In going through the book we have been several times struck with the manner in which it is brought down to date, and with which the many facts are compressed into a small compass.

Thus, we have on page 140, croton-chloral hydrate, and on the next page amyl nitrite, both recent additions to our materia medica, finding which, we looked for other novelties in the index, almost always with success. Propylamine is referred to in two places, but has not obtained a paragraph for itself. There is a better account of oxygen than in any other text-book, and the same may be said of phosphorus, aconite, and some other medicines that have recently been talked about. Of course, it would be unfair to compare the book in some respects with much larger works; but for a small manual it is excellent, and we congratulate the author on his success.

#### TROPICAL DEBILITY. (a)

PRACTITIONERS in this country are often at a loss how to vary their treatment in the presence of the marked debility that is the too constant result of a residence in tropical countries. For this purpose we took up with considerable interest Mr. Dickinson's new pamphlet, and we find it contains a number of valuable hints and wrinkles that should make it welcome to all. As a long resident in India, who has also served throughout the Crimean campaign, and in other parts, Mr. Dickinson is well qualified for the task of imparting his knowledge of the effects of hot climates on the constitution of Europeans, and as he has now been some years in England, he is also able to give sound advice respecting the care needed for patients on their return to England. As an example of how much Mr. Dickinson can compress into a small compass, we take the following extract:—

"It cannot be too forcibly impressed on the reader's mind that in treating the Anglo-Indian our endeavour is to build up and strengthen the shattered constitution by every legitimate means, and that when restored, the liability to a recurrence of such ailments as chronic dysentery, ague, neuralgia, eczema, and many others, is all but impossible. The general outline of treatment can only be indicated here. As before observed, in every case it will be necessary for the medical adviser to consider the condition of the Anglo-Indian on his return from the tropics under two heads—viz., his general condition, which is one essentially of debility, and his special condition, which is evidenced by various manifestations of disease.

"The subjoined classification I have found useful as an aid to diagnosis:—

"a. Impoverished condition of the blood, and the diseases connected therewith.

"b. Nervous affections, as evidenced by loss of memory, insomnia, preternatural excitability and paroxysmal mania the result of sun-stroke, neuralgia, loss of virility, impotence, and spermatorrhœa, mental depression, numbness, sciatica, and certain forms of skin diseases, especially eczema, and not infrequently psoriasis.

(a) "Tropical Debility: a Treatise on the Causes and Treatment of Debility produced by Prolonged Residence in the Tropics." By James C. Dickinson, late of H.M. Bengal Medical Staff, and formerly Staff-Surgeon Crimean Expeditionary Army. London: Baillière, Tindall, and Cox.

"c. Dyspepsia, together with the functional and organic diseases of the organs of digestion.

"d. Obesity, emaciation, chronic dysentery, chronic diarrhœa, congestion of the spleen, and congestion, inflammation, and abscess of the liver.

"e. The diseases of women, especially leucorrhœa and irregular menstruation, and many other affections of the womb which have been hinted at or referred to in the body of the work."

## Correspondence.

### THE HARVEIAN ORATION.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—I beg leave to request the insertion of the accompanying letter in the MEDICAL PRESS AND CIRCULAR.

I do so because its subject concerns the ethics of medical journalism as well as because I feel some explanation of the publication of the Oration in the *British Medical Journal*, even before it was in the hands of all the Fellows of the College of Physicians, necessary to my own justification.

I am, Sir,

Your obedient servant,

61 Wimpole Street, London, W.

CHARLES WEST.

TO THE EDITOR OF THE BRITISH MEDICAL JOURNAL.

SIR,—It is with much surprise that I see the Harveian Oration delivered by me on June 27th, and published by Messrs. Longman and Co., reprinted *verbatim* in the *British Medical Journal*.

A copy was sent to you, as editor of that journal, as to others, by my publishers, for such notice as it might please you to take of it.

Permission to print it had already been asked by yourself as well as by the editors of other journals, and refused by me, believing as I do that the course which I adopted of printing and circulating the Oration among the Fellows of the College was more respectful to the body to which I have the honour to belong than to leave it to be read in the pages of any journal, however influential.

There are certain courtesies which are so common that one never deems it possible they should be forgotten, certain rules of morality so elementary that society could not exist without them. It appears that on this occasion you have had the misfortune to forget both.

It will be an ill-day for the medical profession when those who affect to direct its tone ignore the ordinary rules of every-day life, and from critics descend to become literary freebooters.

I am, Sir,

Your obedient servant,

CHARLES WEST.

I beg leave to inform you that in justification of myself I have sent a copy of this letter for insertion in the other medical journals as well as in the *British Medical Journal*.

### IRISH POOR-LAW MEDICAL OFFICERS.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

DEAR SIR,—I received the following letter from our county member in reply to my application requesting him to support the interests in Parliament of Irish Poor-law medical officers, including the whole payment of their salaries by the State, instead of half, as at present, thus making them to a certain extent a branch of the Civil Service, whereby promotion, increase of salary according to length of service, and certain superannuation would take place, &c.

G. BOLSTER, M.D.

Newcastle, Co. Limerick.

[COPY.]

House of Commons, Thursday night.

MY DEAR DOCTOR,—I am in receipt of yours, together with the enclosures. I shall be very glad to support the amendments, if proposed, both in the Coroners and the Public



Health Bills, as I consider them only just and fair, and as stated in papers which you enclose. As to getting an amendment in the Irish Poor Law this year, there is no chance, as the business of the House is overcrowded, and one-half of it won't be got through.

I remain, my dear doctor,

Faithfully yours,

WM. H. O'SULLIVAN.

G. Bolster, Esq., M.D.

### PHARMACY IN IRELAND.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—Dr. Leet is reported to have said that about thirty towns in Ireland, with a population of from twenty-eight to thirty thousand, were without an apothecary. If this is the case, we must have Bigman's portion in the county of Cork, as I know of no town in the county with a population of a thousand, with the exception of one, that has not at least one. Cork has 13, Bandon 3, Kinsale 4, Mallow 4, Fernoy 2, Kanturk 2, Macroom 2, Middleton 2, Queenstown 2, Charleville 2, Bantry 1, Dunmanway 1, Youghal 1, and even Skibbereen is not without one, and has had two in my recollection. That makes 40 in one county. Besides this number there are a good many L.A.H.'s living in country districts who have not shops. I should say, taking all in all, there are at least 50 in the county. So much for Dr. Leet's statistics as applied to Munster.

Yours truly,

A PHYSICIAN.

### ESTIMATION OF TOTAL NITROGEN IN URINE.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—Permit me to offer a short reply to Dr. Austin's letter in your issue of the 1st instant.

Dr. Austin, in his former letter, supposed that I had overlooked the fact, well known to chemists, that the soda-lime process does not necessarily give the total nitrogen in organic bodies. I replied by pointing to my preliminary treatment of urine with sulphuric acid as being specially directed and sufficient to meet the difficulty, and reminded Dr. Austin that the only step beyond is the "absolute" method of Dumas. I took it for granted that a "medical analyst" could not require any further explanation on so simple a matter; nevertheless, Dr. Austin now regards my remarks as "quite irrelevant," and supposes I "completely passed over without comment" his objection. I shall now leave him to a further study of this point.

Dr. Austin also objects to my plan of "Nesslerising" as being unreliable for quantitative work with small amounts of ammonia; but in reference to this it is only necessary to say that the difference in developed tint between the 9-1000th and the 10-1000th of a grain of ammonia is recognised with facility, in order to show that the plan possesses even more than the requisite delicacy.

So far for Dr. Austin's criticisms on my plan; but he also takes exception to my selection of Liebig's process for estimating urea alone in urine, and he appears to be indignant that I should not have recommended Dr. Davy's chlorine process instead. It would have given me great pleasure for many reasons to do this, if it were possible; but the process referred to does not possess the requisite precision. On the other hand, Liebig's I know to be the best yet proposed for the purpose. In my last letter I dwelt as little as possible on the objections to Dr. Davy's process, as I did not wish to make any unnecessary statements respecting it. Dr. Austin, however, has misinterpreted my motive, and now considers my remarks as "mere assertion without proof." If Dr. Austin will kindly turn to the *Chemical News* for June 12, 1874, he will find more than sufficient proof, for he will there see that not only did Dr. Davy himself find that his treatment gave less than the true amount of nitrogen from urea, but that Huffer, even when using the more manageable hypobromite, ascertained the loss of nitrogen to be irregular and to reach 6 per cent. Dr. Russell, of London, also estimated the loss at about 8 per cent.—a quantity rather greater than the whole proportion of "residual nitrogen" I had to deal with. Knowing these matters well long before the remarks appeared

in the *Chemical News*, and believing the plan to be a "rough and ready" though interesting process, it would have been absurd for me to give it the preference to Liebig's valuable method, however much I might desire to acknowledge the work of a countryman.

Dr. Austin's zeal has been rather in excess of his discretion in this matter, and, as the discoverer of a new urea myself, and therefore of necessity peculiarly familiar with the reactions of these bodies, I may suggest to him to study their characters and those of allied bodies more closely before giving a strong opinion as to the merits or demerits of a process for urea estimation.

I am, Sir, your obedient servant,

July 3, 1874.

J. EMERSON REYNOLDS.

### PRACTICE IN AMERICA.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—Enclosed I send my half-yearly subscription for 1874. I never paid money more willingly for any literary medical journal than I do for the *MEDICAL PRESS*. I consider it instructive and tasteful, imbued with the spirit of this wonderful age, and opposed to that self-conceit which wishes for no change.

Having resided for many years in that part of North America termed the Western States of the United States, although that country is greatly divided since the wretched Civil War, and likely to continue so, I had a fine opportunity of seeing diseases almost unknown to the British Isles (from their peculiar malignity), and am at a loss to know how young inexperienced men manage after having received appointments. As to the class of men who simply go to better themselves, they, as a matter of course, instinctively see their deficiencies, and begin to learn, though, in many instances, they find their first principles almost of no practical value, and fall into American views and mode of practice.

The American medical men, springing from a quick-witted race, are able in the treatment of diseases peculiar to their climate, although they labour under many serious disadvantages, being sadly off (comparatively speaking) for the want of such eminent medical schools as are to be found in London, Dublin, and Edinburgh, as also the noble hospitals of these cities, supervised by medical men of the greatest ability and humanity, as they invariably are; they are not protected by the law, contending with bare-faced itinerant quacks, who ply their infamous trade most successfully on a people who do not drink deep of the Pierian spring, but take for granted all the vain assumptions of these fellows, who pretend to cure all diseases incident to humanity. Yet such is their great perceptive powers, their ardent love for their noble profession, their thirst for knowledge, being all reading men, that, as a profession, they stand high in the estimation of the country. Besides, they have produced such men as Valentine, Mott, and writers like Eberle, Gross, Tully, *cum multis aliis*.

I noticed the total disuse of the lancet, the large quantities of quinine, morphine, podophyllin, and many other alkaloids used, whilst mercurial preparations are avoided as much as possible. As to diseases, they assimilate themselves to the seasons of the year. In the intense cold of winter grave attacks of pulmonary affections, termed congestions of the lungs, which have a rapid and fatal course, acute rheumatism, and neuralgia, assume the character of an endemic. This was the case in the last winter. Rheumatism assailed people of both sexes; no age was exempt, and *infants at the breast* suffered. In the winter of 1872 cerebro-meningitis was most prevalent and fatal at a place called Prairie du Chien, about ninety miles from where I resided, and a curious circumstance occurred which came immediately under my own observation. A present of baby-clothes was sent by a family resident in Prairie du Chien to a house where I attended, and shortly after the parcel was opened and examined by some of the children one of them was attacked with this disease (unknown in the neighbourhood) by terrible sickness, and all the violent premonitory symptoms of a dangerous disease. She recovered after four months' attendance, if recovery it can be called, but with total loss of memory of all her education, even to her very letters, besides the want of power of her left forearm and leg. Another, a younger sister, finally succumbed, after a struggle for months; and there were a few cases which occurred in the neighbourhood—some fatal and more not.

Dysentery is sure to make its appearance during the hot

term—very severe some summers, and not so much so occasionally, dependent, I think, on the range of temperature. In 1857 it became an epidemic, and carried away numbers. It was most unmanageable, and only terminated in the death of those attacked; and on examination the large intestines were nothing more than ulcerated shreds. Another scourge that every summer sweeps away thousands of infants is vulgarly termed the "summer complaint," but recognised by medical men as "cholera infantum." What is it? The most experienced men meet it with fear and trembling. The symptoms on invalids are immediate prostration, thready pulse, pallor, cold clammy sweat, rejection of aliment along with dejections of a gelatinous-looking substance with a reddish tinge. These cases terminate fatally, and often sweep away a whole young family, and leave a sad hiatus instead.

I hope you will excuse this letter, and I remain,

Yours truly,

E. N. HEATH.

Baltinglass, July 2, 1874.

### THE PATHOLOGY OF THE ARTERIES IN BRIGHT'S DISEASE.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—Dr. Campbell Black reiterates his misconception of the views of Dr. Geo. Johnson on this matter in so curious a manner as to suggest the idea of what theologians called invincible ignorance. He apparently is unable to recognise the distinction betwixt "thickening of the coats of blood-vessels" and "hypertrophy of their muscular tunic." Other people can recognise the distinction, and I trust Dr. Campbell Black will some day learn it.

As to the "curious mis-statement" that Dr. Johnson's view is "that the abnormal condition of the blood causes spasm of the minute arterioles of the kidney," it is another evidence of Dr. Campbell Black's inability to expound Dr. Johnson's views, for Johnson expressly asserts that the arteriole spasm is general, and not simply renal. I certainly must recommend Dr. Campbell Black to make himself somewhat acquainted with Dr. Johnson's views ere presuming to subject them to hostile criticism, as it is only too obvious that he does not understand Geo. Johnson's views as expounded by Dr. Johnson himself.

As to his saying, "I rather fear that Dr. Johnson cannot be congratulated on Dr. Milner Fothergill's defence of his opinions," it is simply another evidence of the obliquity of Dr. Campbell Black's mental vision. It may tend possibly even to shake Dr. Black's confidence in his acquaintance with Dr. Johnson's views to know that Dr. Johnson has written to me thanking me for putting his views so clearly.

The question now at issue is, whether is Dr. Johnson himself or Dr. Campbell Black better acquainted with the views of Dr. Johnson? Finally, Dr. Campbell Black raises a dark smoke, and then complains that he cannot see; he misrepresents Dr. Johnson's views, and then criticises his own misrepresentation.

I am, Sir, yours very truly,

J. MILNER FOTHERGILL, M.D., M.R.C.P.Lond.

Lower Seymour Street, London, W.,

July 10th, 1874.

### Gleanings.

#### Dr. Andrews on Ozone. (a)

SOON after the discovery of ozone, Schönbein having observed that the air of the country frequently coloured a delicate ozone test-paper in the same manner as ozone itself, inferred that ozone is a normal constituent of our atmosphere. He concluded that the amount of this body present in the air is different in different localities, and in the same locality at different times, and with great boldness he attempted to connect its presence or absence with the prevalence or rarity of certain catarrhal affections. A new field for investigation was thus opened up, which

has been assiduously cultivated by a large and zealous band of observers. Before referring, however, to their labours, it will be necessary briefly to allude to the present state of our knowledge regarding the existence of ozone in the atmosphere.

Schönbein always maintained that ozone is a constituent of atmospheric air, and his various papers on this subject would, if collected, fill a large volume. In his last memoir he observes that the active substance in the air acts in a parallel manner on iodide of potassium and suboxide of thallium papers, although more slowly on the latter; and that the thallium paper, which has been coloured brown by the air, behaves towards reagents in the same manner as that which has been exposed to artificial ozone. From these facts he infers that the active substance in the air is neither peroxide of nitrogen nor sulphuretted hydrogen. He further states that the atmosphere never contains free nitric acid, although nitrate of ammonium in small quantities is frequently present; and that neither chlorine nor bromine can be present in the free state in air, on account of their affinity for hydrogen. Houzeau also maintained that the existence of ozone in the air was proved by the alkaline reaction of iodide of potassium paper, which had been decomposed by exposure to the atmosphere. Although experiments and arguments of this kind were sufficient to give probability to the view that the active substance in the atmosphere which produces these reactions is ozone, they were at the same time far from conclusive; and some of the ablest chemists in Europe accordingly considered the question doubtful, while others attributed the effects observed to the presence of oxidising agents altogether different from ozone. I will only cite on this point the opinion of M. Frémy, whose researches in conjunction with M. Bequerel on ozone have already been referred to. "Without denying," he remarked at a meeting of the Academy of Sciences in 1865, "the importance of the indications given by the paper of M. Schönbein, or by that of M. Houzeau, I do not find that these reactions demonstrate with sufficient certainty the existence of atmospheric ozone. I am of opinion that the presence of ozone in the air must be established anew by incontestable experiments."

In 1867 I made a set of experiments which I had contemplated some years before, for the purpose, if possible, of finally settling this important question. These experiments have since been successfully repeated by Dr. C. Fox.

The identity of the active body in the atmosphere with ozone we may now assume to be established beyond dispute, and the accuracy of Schönbein's views on this subject to be fully confirmed. To determine, however, the actual amount of ozone in the atmosphere is a problem of surpassing difficulty, on account of the extremely small proportion in which it exists, even when at a maximum. Its presence can be easily discovered by any of the ordinary iodised starch papers, or even more readily by white bibulous paper which has been moistened with a dilute solution of iodide of potassium, and allowed to dry spontaneously in a dark room. If a slip of this paper be exposed for five minutes to a current of air, which will be often supplied by the wind, or may be produced by walking briskly, it will be found to have acquired a delicate red tint, if ozone be present even in the smallest quantities. The tint will be best observed by comparing the slip after exposure with another slip of the same paper which has not been exposed. The action of the diffused light of day on the paper is rarely perceptible after so short an exposure, but this source of error can be easily avoided by enclosing the paper in a hollow cylinder of wood.

Although, with the experimental resources now at our command, we can scarcely venture even to estimate the actual amount of ozone at any time present in the atmosphere, yet it may be possible, as Schönbein long ago proposed, by applying a chromatic scale to the indications of the test papers, to ascertain approximately its relative amount in different localities, and its variations in the same locality. Such estimates must, however, be most uncertain, since the shades of colour produced on test paper hardly admit of being defined by numbers; and in this particular case they are liable to a special source of error, as there can be little doubt that a large but unknown part of the ozone in the air which comes into contact with the paper is catalytically destroyed, and produces no chemical effect whatever. At the same time the ozonometer, especially

(a) Abstract of an address delivered before the Royal Society of Edinburgh.

when used with an aspirator, does unquestionably give indications of value regarding the ozone state of the atmosphere; and till more accurate methods are devised these observations ought certainly to be continued.

Ozone is rarely found in the air of large towns, unless in a suburb when the wind is blowing from the country; and it is only under the rarest and most exceptional conditions that it is found in the air of the largest and best ventilated apartments. It is, in fact, rapidly destroyed by smoke and other impurities which are present in the air of localities where large bodies of men have fixed their habitation, and I have often observed this destructive action extending to a distance of one or two miles from a manufacturing town, even in fine and bright weather.

Ozone is rarely, if ever, absent in fine weather from the air of the country, and it is more abundant, on the whole, in the air of the mountain than of the plain. It is also said to occur in larger quantity near the sea than in inland districts. It has been found to an unusual amount after thunderstorms—a fact which is favourable to the view that the presence of ozone in the atmosphere is due to the action of the free electricity of the latter on the oxygen of the air. The amount of ozone in the air is greater, according to some observers, in winter than in summer, in spring than in autumn; according to others, it is greater in spring and summer than in autumn and winter. As regards the influence of day and night, the observations do not all tell the same tale. Ozone has usually been found more abundantly in the air at night than by day, but some careful observers have found the reverse of this statement to be true.

Schönbein was the first who attempted to connect the fluctuations of atmospheric ozone with the prevalence or absence of epidemic disease; and since this suggestion was first published, numerous observations have been made in different countries with the view of ascertaining whether there is really any connection between the indications of the ozonometer and the health of a district. It has been asserted, for example, as the result of observation, that an outbreak of cholera is accompanied by a marked diminution of atmospheric ozone; but this statement has been disproved by later and more trustworthy observations. On the whole, I think it may be safely asserted that no connection has yet been proved to exist between the amount of ozone in the atmosphere and the occurrence of epidemic or other forms of disease.

The permanent absence of ozone from the air of a locality may, however, be regarded as a proof that we are breathing, if I may venture to use the phrase, adulterated air. Its absence from the air of towns, and of large rooms even in the country, is probably the chief cause of the difference which everyone feels when he breathes the air of a town, or of an apartment, however spacious, and afterwards inhales the fresh or ozone-containing air of the open country. It is, indeed, highly probable that many of the most important actions, by which the products of vegetable and animal waste are removed by oxidation from the air, are due to the action of ozone, and could not be effected by ordinary or inactive oxygen. If the amount of ozone in the atmosphere appear too small to produce such large results, we must remember that, from its powerful affinities, ozone is being continually used up, and must, therefore, be constantly renewed.

The physiological action of ozone on the animal system is a subject of interest, and I am able to state the general results of two independent inquiries—one conducted a few years ago, by Dr. Redfern, in Queen's College, Belfast, the other recently communicated to this Society by Mr. Dewar and Dr. McKendrick. Dr. Redfern's experiments have not been published, but he has kindly supplied me with the following note on the subject:—"The general results," he says, "I obtained from about forty experiments conducted from May to September, 1857, to find the effects of oxygen and ozone on different animals, are as follows:—The respiration for a very short time of oxygen, containing about  $\frac{1}{15}$ th part of ozone, is certainly fatal to all animals. The same gas, when passed over peroxide of manganese and freed from ozone, is comparatively harmless, even when respired for long periods. Respiration of such a mixture of ozone for thirty seconds kills small animals, some dying after respiring it only fifteen seconds; whilst similar animals will live in good health for months after respiring oxygen alone for thirty-seven hours, the carbonic acid being removed during the experiment. Death is not due to the closure of the glottis, for it occurs when a large opening

has been made in the trachea. Ozone causes death by producing intense congestion of the lungs with emphysema, and distension of the right side of the heart with fluid or coagulated blood, frequently attended by convulsions. If ozone be respired in a dilute form, the animals become drowsy, and die quietly from coma, the condition of the lungs and heart being the same, except that the emphysema is less marked. Animals which have respired oxygen for more than twelve hours will now and then die suddenly from the formation of coagula in the heart, even after they have appeared in good health for some days."

The following are the conclusions which Dr. Dewar and Dr. McKendrick have deduced from their researches: Inhalation of an atmosphere highly charged with ozone diminishes the number of respirations per minute, and reduces the cardiac pulsations in strength, the temperature of the animal being at the same time lowered from  $3^{\circ}$  to  $5^{\circ}$  C. After death the blood is found to be in a venous condition. Neither the capillary circulation nor the reflex activity of the spinal cord is appreciably affected. The same remark applies to the contractility and work-power of the muscles. Ozone acts on the coloured and colourless corpuscles of the frog like carbonic acid. Ciliary action is not affected by ozonised air or oxygen, but if the layer of liquid be very thin, the cilia are readily destroyed.

The thermal changes which accompany many of the reactions of ozone are well marked, and their investigation, which has been undertaken by Mr. Dewar, promises to yield a valuable addition to our thermo-chemical knowledge.—*Nature*.

#### The Hereditary Transmissibility of Progressive Muscular Atrophy.

By DR. EICHHORST, Königsberg.

THE author reports from Naunyn's clinic the case of a family in which muscular atrophy was hereditary. In six generations ten persons were affected successively. Of these, seven from three generations are still alive. These are the descendants of two sisters whose father, grandfather, and great grandfather were subjects of the disease. Five of the ten patients were of female sex, and many of the male members of the family, not affected with this disease, died early. The disease always began in the legs and, as a rule, only showed itself after puberty. The patients did not come under treatment until a comparatively late period. The ten cases are detailed in brief.—*Schmidt's Jahrbücher*, March 16th, 1874.

## NOTICES TO CORRESPONDENTS.

### SPECIAL NOTICE.

THE Publisher will be glad to receive arrears of subscription for last and previous years. He regrets to state that there are still several gentlemen against whose names there are as many as four and five years' arrears standing, and who have had repeated applications for payment by letter made to them without any response. He thinks such should not be the case in an honourable profession.

**ARMY MEDICAL DEPARTMENT.**—An examination of candidates for commissions in the Medical Department of the Army will be held in London on August 10th. Applications for admission must at once be made to the Director-General of the Army Medical Department.

**NAVY MEDICAL DEPARTMENT.**—A competitive examination for appointments in this branch of Her Majesty's Service will also be held on August 10th. The necessary forms and information will be supplied on application to the Director-General of the Department.

**MEDICAL COUNCIL.**—The Council is now located in its new offices, at 315 Oxford Street, W., a building formerly occupied by the Royal College of Chemistry. Applicants for registration or other business must address Dr. Hawkins, the Registrar, at the new address.

**A RELIC OF WATERLOO.**—The *Sussex Express* states that Dr. Harding, of Wadhurst, has successfully extracted a French musket bullet from the hand of James Jenner, weighing over three-quarters of an ounce, which was firmly embedded in him at the battle of Waterloo. In spite of the inconvenience arising from the bullet during nearly 60 years the man has worked uninterruptedly as an agricultural labourer in the parish, where he bears an excellent character.

**DR. G. O. R.**—1. Hoblyn's Dictionary of Medical Terms. 2. Parrish's Pharmacy. In the new edition of the latter, just published, you will

find some extremely valuable information upon the points mentioned in your note.

DR. CARPENTER will please accept our best thanks for his courteous note.

COMMUNICATIONS, Enclosures, &c., have been received from Professor Ulrich, Bremen. Dr. Carpenter, F.R.S., University of Aberdeen. Dr. Nathan Allen, Lowell, Massachusetts. Dr. Crichton Browne, Wakefield. Dr. Savory, Massachusetts. Dr. Charles West, London. Mr. Walter Rivington, London. Dr. G. V. Poore, London. Mr. Gaskoin, Westbourne Park. Dr. Hearne, Southampton. Dr. Julius Althaus, London. Mr. Dickinson, London. Dr. J. W. Lane, Bishop's Castle. The Chairman of the Metropolitan Board of Works. Dr. Campbell Black, Glasgow. Dr. Dudgeon, London. Mr. Dobbin, Consumption Hospital. Mr. Tichborne, Dublin. Mr. Kennedybell, Derby. Mr. Hat-her, London. Mr. Young, London. Mr. Bell, London. Mr. T. F. Hale, Chesterfield. Mr. Jabez Hogg, London. Dr. Hawkins, Registrar to the Medical Council. Dr. Milner Fothergill, London. Mr. Sidney Rich, London. Dr. Gubler, Paris. Dr. Hughes, Oramore. Dr. O'Flynn, Glanmire. Dr. McDonnell, Dublin. Dr. Mark, Belfast. Dr. McNeary, Garvagh. Dr. Robinson, Blessington. Dr. Davy, Kilmage. Dr. Fallon, Athlone. Dr. McKeogh, Kilmacthomas. Dr. Miles, Dingle. Dr. Moore, Rockcorry. Dr. Heath, Baltinglass. Dr. Nadin, Tipperary. Dr. MacDermott, Poyntzpass. Dr. Pearce, Newcastle. Dr. Kenny, Whitwell. Dr. Price, Dublin. Dr. O'Farrell, Dublin. Dr. O'Beirne, Athlone. Dr. O'Brien, Banaha. Dr. Beamish, Enniskean. Dr. O'Ryan, Carrick-on-Suir. Dr. Riggs, Armagh. Dr. Ridley, Tullamore. Dr. McKeeg, Coleraine. Dr. Anderson, Moira. Dr. Spence, Belfast. Dr. Robinson, Beragh. Dr. Smartt, Ballymahon. Dr. Roche, Fermoy. Dr. Maguire, Castleknock. Dr. Irvine, Sydenham. Dr. Smyly, Dublin. Dr. Gordon, Saintfield. Dr. Woods, Parsonstown. Dr. Halpin, Arklow. Dr. Tweedy, Dublin. Dr. Walter, Dublin. Dr. Dale, Devonport, &c.

#### BOOKS, PAMPHLETS, AND MEDICAL JOURNALS RECEIVED.

*Tropical Debility.* By James C. Dickinson, M.R.C.S. London: Baillière, Tindall, and Cox.

*Clinical Medicine.* By Balthazar Foster, M.D. London: J. and A. Churchill.

*Pathologie und Therapie der Muskulären Rückgratsverkrümmungen.* Von Prof. A. S. Ulrich. Bremen.

*Materia Medica and Therapeutics.* By A. B. Garrod, M.D. Fourth Edition. London: Longmans, Green, and Co.

*Public Health in the Past and in the Future.* By G. V. Poore, M.D. The Sewage Question. By Mr. Sydney Rich.

*The Practitioner.* *The Sanitarian.* *Gazette Médicale.* *American Chemist.* *Medical Temperance Journal.* *Journal de Thérapeutique.* *Allgemeine Wiener Medizinische Zeitung.* *British Journal of Dental Science.*

#### VACANCIES.

East London Hospital for Children. Assistant Visiting Physician. Election August 4th. Particulars may be obtained of the Secretary. (See Advt.)

Cancer Hospital, Brompton. House Surgeon and Registrar. Honorarium 75, guineas, with board and residence. Applicants must address the Chairman of the Weekly Board. (See Advt.)

King's College London. The Chairs of *Materia Medica* and of *Comparative Anatomy*.

Owen's College, Manchester. Professorship of *Anatomy*. Emoluments from stipend and fees, guaranteed not to be less than £500 per annum. Full particulars on application to Dr. Greenwood.

Stockport Infirmary. House Surgeon. Salary, £80 per annum, with board and apartments. Address the Hon. Sec.

West Norfolk and Lynn Hospital. House Surgeon and Secretary. Salary, £80 per annum, with board, lodging, and washing. Testimonials, &c., to be sent to the Weekly Board, King's Lynn.

Kingston Union. Medical Officer for the new Radnor District. Salary, £80, with extra fees. Application to the Clerk before the 25th.

Burnley Union. Medical Officer of Health. Inclusive salary, £500 per annum. Address the Clerk to the Sanitary Authority, Burnley.

University of Durham. Professorship in *Biology*. Salary, £450, with a portion of fees. Candidates must apply to the Secretary of the College of Physical Sciences, Newcastle-on-Tyne.

Northampton Infirmary. House Surgeon. Salary, £125 per annum, with board and lodging. Applications to the Secretary.

Northampton Infirmary. Assistant House Surgeon. Salary, £80, with board and lodging. Address the Secretary.

North Staffordshire Infirmary, Hartshill. House Physician. Salary, £80, with board and lodging. Address the Secretary.

Buckingham General Infirmary, Aylesbury. Resident Surgeon. Commencing salary, £80, with board and lodging. Address Mr. G. Fell, Aylesbury.

Liverpool Royal Southern Hospital. Junior House Surgeon. Salary, 80 guineas. Application to the Treasurer, at the Hospital.

Denbighshire Infirmary. House Surgeon and Secretary. Must understand Welsh. Address the Chairman of Committee. Salary to commence at £35.

#### APPOINTMENTS.

ATKINSON, E., M.R.C.S., a Surgeon to the Leeds General Infirmary.  
CAMPELL, W., M.D., C.M., House Surgeon and Secretary to the Glamorganshire and Monmouthshire Infirmary and Dispensary.

DENTON, E. R., M.R.C.S.E., Medical Officer and Public Vaccinator for No. 2 District of the Leicester Union.

DUNCAR, A. J., M.D., L.R.C.S.Ed., a Physician to the Dundee Royal Infirmary.

EDGE, A. M., M.D., M.R.C.S.E., a District Surgeon to the Salford and Pendleton Royal Hospital and Dispensary, Manchester.

FINEGAN, Dr. J. S. F., Medical Officer to the Finglas and Glasnevin Dispensary District.

FLAMSTEAD, W. R. D., L.R.C.P.Ed., House Surgeon to the District Hospital, West Bromwich.

FLEMING, J. N., M.D., a Physician to the Newcastle-on-Tyne Dispensary.

HAWTHORN, W. T., M.R.C.S.E., Medical Officer to the Workhouse and for the Northern No. 2 District of the Wellington, Salop, Union.

HERMAN, G. E., M.R.C.S.E., House Surgeon to the London Hospital.

HOPE, Mr. J. W., House Surgeon to St. Peter's Hospital

LETTERS, P., M.B., C.M., Surgeon to the Middle Dispensary District, Dundee Royal Infirmary.

MACEWAN, D., M.B., C.M., Surgeon to the Dundee Royal Infirmary.

MACNAB, W., L.R.C.P.Ed., L.R.C.S.Ed., Certifying Factory Surgeon for Skipton, Yorkshire.

MILLER, J. W., M.D., Consulting Physician to the Dundee Royal Infirmary.

OTTLEY, W., M.B., M.R.C.S.E., Resident Surgical Officer to the General Hospital, Birmingham.

POWNE, B. L., M.R.C.S.E., Medical Officer to the Workhouse, and for No. 1 District of the Chard Union, Somersetshire.

RAHILLY, J., L.A.H.Dub., Apothecary for the Kanturk Dispensary District of the Kanturk Union.

RANGER, W. G., M.R.C.S., Assistant Dental Surgeon to St. Thomas's Hospital.

REDMOND, Gabriel O'C. F., Medical Attendant to the Royal Irish Constabulary, Cappoquin and Cross of Scart, co. Waterford; Medical Attendant Industrial School, Cappoquin.

SMITH, R. D., M.R.C.S.E., House Surgeon to the London Hospital.

TURNER, J. S., M.R.C.S.E., Medical Officer and Public Vaccinator for No. 5 District of the Mansfield Union.

WHITE, H. F., LA TOUCHÉ, L.K.Q.C.P.I., L.R.C.S.I., Medical Officer to the Workhouse of the Caxton and Arrington Union, Cambs.

## Marriages.

GILES-CAMPBELL.—On the 2nd inst., at St. James's, Paddington, Richard Giles, M.D., Oxford, to Agnes, relict of Thos. Campbell, Esq. of Annfield, Ayrshire, Scotland.

FLEMING-ENO.—On the 9th inst., at the Parish Church, Winton, J. N. Fleming, M.D., Newcastle, only son of J. Fleming, Papcastle, Cumberland, to Laura Eno, eldest daughter of J. C. Eno, Beda Lodge, co. Durham.

NEWTON-BLACK.—On the 9th inst., at St. Nicholas Church, King's Lynn, John J. Newton, of Hunstanton, Norfolk, to Agnes, eldest daughter of the late James Black, M.D., of King's Lynn.

## Deaths.

BROWN.—On the 2nd July, Geo. Brown, M.D., of York Road, Hove, Brighton, aged 60

CLARKE.—On the 20th June, Wm. H. Clarke, L.R.C.P.Ed., L.R.C.S.Ed., of Stratford-on-Avon, aged 32.

DUFFY.—On the 23rd June, Francis Duffy, M.D., of River-view, Carrickmacross, co. Monaghan.

JEFFERSON.—On the 27th June, Richard Jefferson, M.R.C.S.E., of Market-Weighton, Yorkshire, aged 74.

LYON.—On the 5th July, David Mitchell Lyon, L.R.C.P.Ed., L.F.P. Glas., of St. Helens, Lancashire.

MUDGE.—On the 27th June, Henry Mudge, M.R.C.S.Eng., of Bodmin, aged 68.

**M<sup>R</sup>. I. SANDHEIM,**

**Dentist,**

**18 SUFFOLK STREET,**

**DUBLIN.**

*N.B.—A Vacancy for a Pupil.*

# The Medical Press & Circular.

"SALUS POPULI SUPREMA LEX."

WEDNESDAY, JULY 22, 1874.

## GENERAL COUNCIL OF MEDICAL EDUCATION AND REGISTRATION.

SESSION 1874.

In our last issue we gave a report of the proceedings of the Council from the commencement of the session on Thursday up to Monday afternoon. The last portion of the proceedings were only briefly reported, and it may, therefore, be well before passing to Tuesday's work to add a few particulars as to Monday.

MONDAY, JULY 13 (*continued*).

The letter from the registrar of the London University, enclosing one from the Home Office, reported to be read in our last, was in the following terms :—

University of London,  
Burlington Gardens, W.  
July 7th, 1874.

DEAR SIR,— I am directed by the Senate of the University of London to forward to you the accompanying copy of a letter from the Home Secretary, from which it will be seen that the University will now be enabled fully to co-operate in the Scheme of Conjoint Medical Examination, which has been approved by the Medical Council,

I remain, Dear Sir,  
Yours faithfully,  
(Signed) WILLIAM B. CARPENTER.

Dr. FRANCIS HAWKINS.

[COPY.]

Whitehall, 29th June, 1874.

SIR,— I have the honour to acknowledge the receipt of your letter of the 18th instant, and to inform you that I approve of the following resolution of the Senate of the University of London, viz. :—

"That henceforth no candidate, unless he have passed the Preliminary Scientific (M.B.) Examination before the final adoption of the Scheme of Conjoint Medical Examination, shall be admitted to the second M.B. examination of the University of London, until he shall have passed the final examinations of the Conjoint Board."

I have the honour to be, Sir,  
Your obedient Servant,  
(Signed) RICH. ASSHETON CROSS.  
The REGISTRAR of the University of London.

A letter from the Pharmaceutical Society of Great Britain, inclosing copy of a resolution of the Council of that body, was then read. This resolution, which expressed the readiness of the Society to co-operate in the work of the Pharmacopoeia Committee, has previously been noticed in our columns.

After this it was moved by Dr. Macnamara, seconded by Dr. A. Smith, and agreed to :

"That it is advisable that in future, proof sheets, as printed, but previous to publication, of the General Register, should be forwarded to the Branch Registrars for each division of the Kingdom for revision."

Another resolution was then submitted by Dr. Macnamara, and seconded by Dr. A. Smith to the following effect :

"That it be referred to Mr. Ouvry to instruct the Executive Committee as to the strictly legal manner in which additional titles, changes of residence, and erasures of names, should be effected on the general register."

This resolution was agreed to, and with the former will probably tend to make the register more accurate.

On motion from the Chair, the Council then resolved itself

into committee of the whole Council, when Dr. Humphry moved : "That the reports on the visitations of the medical examinations in the Queen's University, in Ireland, held June 1873, and September 1873, be forwarded to that University for consideration and remarks."

Dr. Bennett seconded the motion ; agreed to.

It was then moved by Dr. Parkes :

"That the Council desire particularly to call the attention of the Queen's University to defects noticed in the second report in the preliminary examination, and in some of the subjects of the professional examinations."

Dr. Parkes called special attention to the statement of the visitors :—"Looking to the comparatively short time allotted to the examinations, the fewness of the subjects of examination, and the meagreness of the knowledge required of candidates in the more important of them, we cannot think that the examinations are at all adequate to insure that the successful candidate shall have had even a very moderate previous education." "The clinical surgical examination struck us with its excellence so far as it went ; it appeared, however, on the whole, to be meagre. The medical clinical examination was a *bona fide* examination, but struck us still more forcibly as being insufficient. The practical midwifery examination was, within its limits, very good, but we scarcely thought it sufficiently extended or searching to justify the granting of a special midwifery diploma."

Sir Wm. Gull seconded the motion ; he was more favourably impressed with the examination of the Queen's University than with that of the College of Surgeons in Ireland. He commented on defects in spelling, and thought it wrong to allow in zoology a choice of vertebrates or invertebrates ; and the preliminary examination was very defective.

Dr. Humphrey opposed the motion. The preliminary examination was not alluded to in any other report, and it would be hard to censure the University in the absence of information as to the preliminary examinations of other bodies. The arrangements of the university were in a state of transition, and in future the examination in physics, &c., would take place at an earlier period. As to the choice allowed to candidates between vertebrate and invertebrate animals, he thought it was not injudicious ; it was better to examine the student in one branch of so wide a subject than to let him range over the whole field. He would not censure the Queen's University, and quoted the passage with which the visitors of the first examination concluded their report : "It is with much pleasure that we are able to report so satisfactorily of the medical examinations in the Queen's University. Though there are some points which, in our opinion, might be altered for the better, there are others which seem to us well worthy of imitation." The visitors of the second examination also reported : "We were very much impressed with the general excellence and thoroughness of the examinations we witnessed so far as they went." On the whole, the visitors had taken more pains to examine and criticise than was the case with regard to any other body. They were received and treated most courteously, and nothing whatever was kept from them. Every facility was given to him and his colleague ; they were even allowed to be present at the final arrangement and adjustment of the marks. The examination in anatomy was perhaps the best in the empire, and on his return to Cambridge, one of his objects was to bring the examination there into closer correspondence with that of the Queen's University.

Sir Wm. Gull again interposed to quote the following passage in the second report : "With the practical knowledge displayed in the clinical, medical, and surgical examinations we were better pleased, but, as we have pointed out, these examinations were somewhat superficial, and, had they been as searching as those in anatomy, might possibly have been attended with similarly disastrous results."

Dr. Bennett said that he and his colleagues visited the examinations of the Queen's University at examinations for the degree of M.D. ; not merely as pass examinations. The

authorities themselves admitted the defects pointed out, and were anxious to rectify them. The subject of preliminary education was touched upon because it was part of the general course for the degree of M.D. Finding the preliminary education of the majority of the candidates defective, they were led to inquire into the regulations respecting it. He agreed with Dr. Humphrey as to the wisdom of allowing a student a certain choice in regard to zoology; and intended later on to call attention to the absolute necessity of limiting the area over which some examinations extended. To take a student over the whole field of zoological science was perfectly absurd.

Dr. Fleming quoted the following statement of the visitors: "We ascertained that it was a common practice for candidates rejected at the M.D. examination of the Queen's University to present themselves at the next ensuing examination of one of the Scottish licensing bodies, and to obtain therefrom a licence to practise almost immediately after previous examiners had declared them to be unfit. He then said, many candidates came to Glasgow from Belfast, that city being as near as Dublin; and candidates from schools in the centre of England found it as easy to go to Glasgow or Edinburgh as to London. He had obtained a statistical return in regard to Irish candidates who applied for the licence of the Faculty of Physicians and Surgeons in Glasgow from 1868 to 1874, and the following was the result:—In 1868 the number of candidates educated in Ireland was 10; passed, 5; rejected, 5. In 1869 the number of candidates was 12; passed, 5; rejected, 7; number passed who had passed first examination in Queen's University, 1; number rejected who held Irish degrees, 3. In 1870, candidates, 9; passed, 3; rejected, 6; number passed who had passed first examination of Queen's University, 1; number rejected who held Irish degrees or diplomas, 2. In 1871, candidates, 12; passed, 4; rejected, 8; number passed who had passed first examination of Queen's University, 1; number rejected who held Irish degrees or diplomas, 3. In 1872, candidates, 7; passed, 2; rejected, 5; number passed who had passed first examination of Queen's University, 0; number rejected who held Irish degrees or diplomas, 4. In 1873, candidates, 5; passed, 0; rejected, 5; held Irish degrees or diplomas, 3. In 1874, candidates, 4; passed, 2; rejected, 2; number passed who had passed first examination of Queen's University, 1; number rejected who held Irish degrees or diplomas, 1. The total number of candidates during this period was 59; passed, 21; rejected, 38; number passed who had passed first examination of Queen's University, 4; number rejected who held Irish degrees or diplomas, 16. This would show whether the examinations in Glasgow were sufficiently searching. He courted any amount of inquiry into the subject, and maintained from the statistics given that the standard of examination was higher in Glasgow than in Ireland?

Dr. A. Smith asked what were the licensing bodies in Ireland whose candidates were rejected in Glasgow, and especially how many of such candidates held the licence of the College of Physicians in Ireland?

Dr. Andrew Wood said the visitors stated: "The existence of the practice here referred to, and the extent to which it is carried on, might be ascertained by requiring of all examining bodies lists of their successful and unsuccessful candidates." He did not wish to be invidious, or he could show where the candidates came from in Scotch examinations who showed lamentable ignorance in spelling. There was not a single recommendation made by the Council which the body he represented had not at once adopted.

On the motion of Sir D. Corrigan, the debate was adjourned.

#### TUESDAY, JULY 14.

The minutes of the last meeting having been read and confirmed, the Council resolved itself into a committee of the whole Council, and Sir Dominic Corrigan resumed the consideration of the report of visitations of examinations; and on the motion of Dr. Parkes, seconded by Sir William Gull, viz.:

"That the Council desire particularly to call the attention of the Queen's University to defects, noticed in the second report, in the preliminary examination, and in some of the subjects of the professional examination."

Sir Dominic Corrigan moved as an amendment:

"That all comment and criticisms of the reports of visitations be suspended until the reports of visitations of all the licensing bodies be laid before the Council; and that the resolution

of Sir W. Gull, seconded by Dr. Parkes, on July 11, 1874, in reference to the Royal College of Surgeons in Ireland, be, and is hereby, rescinded."

This debate being of special interest to many of our readers, and perhaps the one most exciting of the whole session, we give a fuller report than of some other proceedings.

In support of his amendment Sir Dominic Corrigan said he was more convinced than ever the Council had done wrong in coming to any conclusions until the reports as to all the corporations were before them. They were now in this remarkable position: Dr. Parkes and Sir William Gull, who in respect of the College of Surgeons and the Queen's University changed places like the characters in a pantomime, urged a censure; while one of the visitors, Dr. Humphrey, stated that the examinations in the subjects that were the foundation of all medical studies were so good, that he wished to adopt the same system in Cambridge. Dr. Parkes had dwelt upon the defects of the preliminary examination, but in the report the visitors merely recommended that history and geography should be removed from the list of subjects. He could scarcely read that without laughing. As to the matriculation examinations at two of the colleges being "little more than a farce," the same might be said in respect of nearly all the colleges whose preliminary examinations were recognised by the Council. Dr. Parkes finding that the College of Surgeons was severely dealt with by the resolution passed on Saturday, by way of compensation, proposed to be twice as unjust to the Queen's University. For years Dr. Parkes had shown hostility to the Queen's University. It was the youngest child of the Medical Council—the last created University, and seemed in its infancy unable to protect itself. Whilst this young Hercules was in the cradle, two serpents were sent to strangle him, but the baby proved too strong for them, and now he defied all attempts to injure him. Dr. Parkes proposed in 1870 a resolution upon which there was a discussion occupying two days. It was in these words: "That it be an instruction to the Executive Committee to communicate to the Privy Council the correspondence between the Registrar of the Queen's University in Ireland and the General Medical Council, and to urge upon the Privy Council the necessity of refusing registration to the graduates of the Queen's University until the University complies with the recommendation of the General Medical Council on the preliminary examination of medical students." Dr. Parkes withdrew that resolution, but allowed four years to pass without attempting to carry his threat into execution.

Dr. Parkes here said he had repeatedly in Sir Dominic Corrigan's hearing given his reason for not doing so, which was that the Medical Act did not authorise the interference of the Privy Council in reference to preliminary examination.

Sir Dominic Corrigan replied to this—"Then you brought forward an illegal resolution."

Dr. Parkes said he did not know it at that time.

Sir Dominic Corrigan retorted, "You ought to have known it before proposing a resolution then damaging to the reputation of the Queen's University."

Dr. Parkes: "I have explained the whole thing several times."

Sir Dominic Corrigan went on to declare that as to the censure or praise of the Council the Queen's University felt exactly as it did from the commencement. It had done its work well, and had obtained the highest distinction at the examinations of the Army Medical Board. With those results before the Council, Dr. Parkes ought not to have brought forward his resolution, which was the most unbusiness-like resolution he had ever read. It spoke of defects "in some of the subjects of the professional examinations" without specifying any. Sir Dominic then drew the attention of the Council to some passages in the report, which had been omitted by those who had criticised it: "The answers are written in books, which must be given up without mutilation, in order to prevent the candidates from communicating with one another by slips of paper. Notwithstanding these precautions, and the presence of Mr. Stoney, the Secretary, who exercised unusual vigilance, instances of communication between the candidates occasionally occurred and were observable. We mention this rather to indicate the great difficulty of conducting an examination satisfactorily than to criticise the conduct of the examination in this instance, which appeared to us to be particularly good."



Sir Dominic would like to know if that was one of the defects in the professional examination? Again—"The clinical examinations are conducted in the hospitals and union houses, the precise place in which each examination is to take place not being made known to the students till the morning of the examination." Was that a subject for censure or for praise? It was unfair in criticising a report to omit such passages. He would read another: "The examiners in anatomy and physiology, in chemistry, botany, zoology, modern languages, and experimental physics, are the professors of the three colleges, and are therefore permanent examiners. The three professors of the three colleges act together as examiners in each subject. Those in midwifery, medicine, surgery, medical jurisprudence, and materia medica (there is only one in each) are appointed by the Senate, and hold office for two years." That, surely, was a very fair court of examiners; every two years they changed the major part of the examiners in arts and in medicine. In some other universities the same examiners were continued for life, and yet, whilst reports as to those bodies which had such faults in them were not before the Council, they were asked to censure the Queen's University. "The questions are ranged under the names of the examiners who have severally set them, and the answers to the questions of each examiner are looked over, and the marks assigned by that examiner. By this means, no doubt, trouble and time are saved, and we did not observe that any evil resulted from it." Was not that a subject for praise? Great fault had been found with the practice of allowing a man to choose between the papers on vertebrate and invertebrate animals; but he thought one of those subjects was quite enough, and it was certainly a better plan than that of another university, which divided its course into civil history and natural history—the first part consisting of the history of England from the accession of George I., and the second part of vertebrate and invertebrate animals. Upon the examination in practical anatomy, the visitors said: "The examination was conducted in a remarkably thorough, searching, and efficient manner. For instance, one candidate who had dissected the axilla was examined successively on the upper part of the thigh, the digastric triangle of the neck, the outer side of the leg, the bend of the elbow and the upper arm, the posterior wall of the abdomen and thorax, and the cranial cavity, as well as upon the axilla, which he had himself dissected. He was then examined on the superior and inferior maxillary bones, the tibia, fibula, and patella." Was it fair in Dr. Parkes not to call attention to such a passage as that? "The oral examination on the bones and on the dissections were conducted by the several examiners separately, the pupils as a rule not being questioned by the professor of their own college." At several other universities a man was examined in books from which he had been carefully taught. The clinical examination in surgery was "well conducted," and in the oral examination "the questions, which were varied, were good, and generally well answered. It occupied more than the three hours allotted for the paper, and had to be continued on a subsequent occasion." That could not have been a bad examination. The reason the visitors gave for recommending that there should be two examiners in clinical surgery was very curious: "because, among other reasons, in the investigation of patients there is not unfrequently room for some difference of opinion;" so that they suggest that there should be a row at the patient's bedside. (Laughter.) "The introduction of anatomy and physiology as parts of the final examination appears to us to form a very valuable and important feature in the system of this University." That was a most important point. "A knowledge of these subjects, so essential to the successful practice and the scientific pursuit of medicine, can, as a rule, be obtained only during the period of student life. When the examination in them is confined, as is usually the case, to the primary examination, these subjects are studied only for a short period, and at a time when their practical bearings can be but insufficiently appreciated by the student. They are hence liable to be soon forgotten. This—which is felt by many teachers to be a serious evil attendant upon the system, now universally followed, of completing the anatomical and physiological education and examinations at the end of the second year of the medical curriculum—is avoided in the Queen's University by repeating the examination in these subjects at the close of the curriculum." Was that matter for censure?

Dr. Parkes here interrupted to ask if the gentleman whose

answers were printed at page 163, and who passed the examination for M.D., was examined in the modern languages, especially in English?

Sir Dominic Corrigan replied: Certainly, and proceeded to read the following passage at page 205: "But when we consider the fact that candidates are only required to attend the medical practice of a hospital containing sixty beds, of which probably thirty only are medical, for a period of two years without necessarily holding the office of clinical clerk or taking any part in the management and treatment of the patients, it would almost appear that the medical examinations were reduced in stringency and relative importance in deference to the slender clinical experience of the expected candidates." Sir Dominic declared that a student might learn much more from carefully examining cases in a hospital where there were only sixty beds than from wandering about among 200 or 300 beds, and cursorily looking at cases. The report continued: "It does not appear from the calendar that a candidate for the M.Ch. needs to have filled the office of dresser." Was that necessary? How was every student to get the office? It is impossible to make all dressers.

Dr. Parkes again interrupted to say: The report goes on to say, "or that the candidate for the midwifery diploma needs not to have conducted a single case of midwifery."

Sir Dominic Corrigan said that was not correct. He did not read it, because he did not wish to be too hard upon the visitors. Several pages of the report were occupied with arguments upon the futility of testing the merits of candidates by figures. At page 212 they said, "the number of examiners in medicine, surgery, midwifery, materia medica, and forensic medicine should be doubled." Very good, but where were the funds to come from? The Treasury who examined the accounts might possibly object. At page 213 there was the paragraph about which so much had been said—that candidates rejected by the Queen's University, as a "common practice," presented themselves to Scottish licensing bodies, and obtained the necessary qualifications from them. What proofs of that had the visitors? If they had none, they ought rather to have cut off their hands than have written such words.

Dr. Aquilla Smith seconded Sir D. Corrigan's amendment.

Dr. Parkes in reply said, the only reason for the charge of hostility which Sir Dominic Corrigan had made was, that some years ago he had brought forward a motion urging that the Privy Council should disallow the registration of Queen's University men until that University had complied with the suggestions of the Medical Council. Some years ago there was a visitation of the Queen's University, and the visitor reported that the University had not complied with the regulations of the Medical Council. A committee was appointed to consider the various reports, and that committee put this paragraph in its report: "The Committee are informed that a student may follow his professional studies for two years before passing his preliminary examination in arts. The attention of the University should be directed to the evil of this, as permitting insufficiently educated persons to enter on professional studies." He proposed that the Registrar should write to the Queen's University requesting their attention to this report, and pointing out that they were not complying with the recommendations of the Council. The Registrar wrote a second time, but to that letter there was no answer, or a doubtful one. He therefore addressed a few questions to Sir Dominic Corrigan, but he might as well have addressed them to an eel. At one time he was not in the Council, and at another time he appeared to misunderstand the questions; but he was far too sharp to misunderstand anything; he could not get an honest "yes" or "no" from him. Then he brought forward the resolution which Sir Dominic had read, but after bringing it forward he was informed that the Privy Council could not judge between the Council and the Queen's University because it concerned preliminary, not professional education. The President asked him to withdraw the resolution, and he did so. He disclaimed any hostility to the Queen's University. Some of the professors were his personal friends, and the University had done good service in Ireland. Until he read this report he was of opinion that it had done much better. He was obliged to Sir Dominic for calling attention to the resolution proposed in 1868, because the Council would see that nothing had been done in the Queen's University in compliance with the suggestions of the Council



for the last seven years. With the exception of anatomy, there was not a subject upon which something serious was not reported. Dr. Bennett said what he could to extenuate this; but did he wish the Council to take what he said yesterday or what he had written! If he wished to eat his own words he could not eat the words of his colleague, Dr. Bristowe.

The President said he did not believe there was one body recognised by the Council whose preliminary examination was a "farce."

Sir William Gull protested against its being said that any member of the Council was actuated by hostility because he felt it his duty to criticise a report. He had known Dr. Parkes for thirty years, and he was the most honourable and fair man he knew. If the Council rescinded its resolution he would move that they should go before the Privy Council with the report in their hands. (Hear, hear, from Sir D. Corrigan.) It was utterly unbecoming that personalities should pass between members of the Council.

Dr. Bennett said that this, to the best of his belief, was an honest report. Dr. Bristowe and himself were open to receive information from any quarter that presented itself, and there was not a statement in the report which was not given on credible authority. It would be a breach of confidence if they were to give up the names of those who supplied information. They did not go outside Queen's University for the information. He sympathised with the remarks of Sir William Gull, in reference to Dr. Parkes, who was on the committee on preliminary examinations, and did no more than his duty in insisting upon returns which have never yet been received from Queen's University.

Dr. Andrew Wood deprecated the tone of Sir Dominic Corrigan's remarks, but the statements of that gentleman had convinced him that the Council ought not to censure the Queen's University. He hoped, therefore, that they would not adopt the motion of Dr. Parkes. He believed they were justified in the course they had taken with regard to the College of Surgeons, especially in the matter of their refusing to give up the papers. He did not impeach the honesty of Dr. Bennett's report, nor the industry with which it had been drawn up; the industry was really excessive, for several pages were devoted to observations upon the system of giving marks, which appeared so far-fetched that they were not worth the trouble of reading. Dr. Bennett was bound, in his opinion, to give his authority for the invidious passage at page 213, relative to men rejected at the Queen's University obtaining Scotch diplomas. Dr. Fleming's statistics proved that the remark could not apply to the body he (Dr. Fleming) represented. To whom then did it apply? Dr. Bennett was bound to state what evidence there was of that, and the data on which that statement was made. A great many candidates came over from Ireland to the Scotch examinations; if they were badly prepared they were rejected, if they were well prepared they passed. His defence to the accusation was the reports of the visitors themselves. Had they said that the examinations were improperly conducted, or had they made such remarks as would imply censure? They had not, because there was no ground for it. He should be very glad if Dr. Bennett would state where he got his facts, for the amount of bad feeling that that paragraph had produced and would produce in Scotland was very great.

Dr. Bennett said Dr. Wood himself would be very much surprised if he were to hear some of the sources whence that information came.

The President thought it undesirable to continue the discussion, as the matter would come before the Council at a subsequent sitting.

Dr. Humphry said one of the first duties of the Council was to behave fairly to the various bodies with reference to whom these visitations were made. Several visitations had been made, and in each case some points were mentioned which might be amended. There was no one body on which such high encomium had been passed as that contained in the last paragraph of the report now under consideration. His impression and that of his colleague with regard to the Queen's University was that it was one of the best examinations they had ever witnessed. If the Council passed a motion of this kind, they would be passing it in opposition to the opinion of the two gentlemen sitting at that Board who made the visitation of those examinations—namely, Dr. Bennett and himself.

Sir D. Corrigan said he would be most happy to assist Sir

W. Gull in carrying out his object. Let them meet before the Privy Council and see what the result would be.

Dr. Macnamara said he was never more astonished in his life than at the tone adopted by some of the speakers. It would be more becoming their position, if, instead of making sneering remarks, full of personalities, they were calmly to discuss the questions, and to point out the defects existing in the respective bodies; but let it be done in a spirit of fair play. For his part, he should be very happy to go to the Court of Appeal, for the reputation of the Royal College of Surgeons of Ireland stood second to that of no other surgical body. They had long held the very highest position in the opinion of medical authorities and the public. If Sir D. Corrigan stated that the preliminary examinations of some colleges were farces, he would go farther, and say every examination that the Council accepted must be a farce, because all the subjects that were included in the curriculum laid down by the Council were absolutely included in the curriculum of the College of Surgeons. He had most carefully read the report of the visitors at the Queen's University. For two years he had himself filled the office of examiner in the Queen's University, and could testify to the manner in which its pupils were most skilfully examined. The resolution of Dr. Parkes was stronger than that which had been passed with reference to the College of Surgeons. The Council must bear in mind that the rule in Ireland was the adoption of the double qualification, and for practitioners not to rest satisfied with the single qualification at the College of Surgeons, valuable though it might be. Therefore the examiners at the Council of Surgeons might possibly only ask a few superficial questions with regard to matters belonging to the other qualifications, just so as to provide that the candidate should know something about them, in case by accident he went out to practise with a single qualification. He should urge for no man to be allowed to practise without the double qualification, and in that case the College of Surgeons would refrain from putting any questions at all on the subject of disease, but would leave it in the hands of the College of Physicians. Sir W. Gull adopted a rule well known in Ireland, that when a person had a bad case he must abuse the opposite counsel. There was a species of blindness which was very remarkable, in which people could not see some things in daylight, whilst they could see other things in the night-time. He invited Professor Sharpey to turn his attention to this remarkable phase of blindness, as exhibited by Sir W. Gull.

The President here reminded Mr. Macnamara of the caution he had himself given with regard to personalities.

Mr. Macnamara said he felt he must give it to Sir W. Gull. If Sir W. Gull had had an idea of fair play he would never have suppressed this sentence: "In conclusion, we may remark that the good points of this examination are sufficiently obvious. It combines, in a very appropriate and advantageous manner, a written, an oral, a clinical, and a practical examination; and if efficiently conducted—"

Sir Wm. Gull.—"If."

Mr. Macnamara.—"If" is introduced into every one of the reports. "If efficiently conducted, it is difficult to conceive that any candidate could pass who had not acquired a thorough knowledge of the foundation of personal attainments. Its defects, on the other hand, as at present conducted, are no less patent; and we have the less hesitation in referring to them since we have reason for believing that they are recognised by several members of the Council, and are likely to be in part removed by changes about to be adopted." He hoped the Council would refuse to pass the resolution.

Dr. Quain could not give a silent vote on this question. He did not regard Dr. Parkes' motion as a vote of censure, but as they had not directed the special attention of the other bodies to the reports, he could not support a motion for directing the special attention of the Queen's University to its report. With regard to the College of Surgeons in Ireland, the Council could not have passed over the practice of destroying the examination papers without some special remark. There was nothing, however, in the Queen's University that called for any special remark on the part of the Council.

Dr. Acland said he agreed with Dr. Andrew Wood that it would be most unsatisfactory to vote for either amendment or motion. The terms of accusation in the report were no stronger than the terms of admiration. It was a curiously balanced document. He regretted that the Council should discuss such small questions. The moment the Council descended from its great position to interfere in details with the

great university bodies, its moral influence was gone. The late Professor Syme remarked that the influence of the Council was by leading the bodies, and not attempting to drive them. The driving power of the Council was a representation to the Privy Council. If it was thought right that they should go there, why then it would relieve them of the difficulty, and the point could be fully argued, but they must not go there except upon full evidence. He should be sorry to see one body taking upon itself to condemn another body, especially when Professor Humphrey had said that, in the judgment of himself and colleague, he did not consider the Council would be justified in sending a request which would amount to a vote of censure.

The amendment moved by Sir D. Corrigan and seconded by Dr. Smith, was then put to the Council, and rejected by a majority of 13 to 4.

The motion was then put to the vote, and was also negatived. On motion from the Chair, the Council resumed.

Dr. Storrar moved "That the resolutions of the Council in committee be adopted by the Council."

Mr. Quain seconded the motion, it was agreed to.

SIR D. CORRIGAN'S PROPOSED BILL TO AMEND THE MEDICAL ACT OF 1858, 21 and 22 vict., cap. 90, was taken as read.

Whereas it appears expedient to amend the Medical Act, August 2nd, 1858, 21 and 22 vic., c. 90 :

1. That from and after the

Clause XXXVI. be and is amended as follows :—That from and after the passing of this Act no person, unless previously registered, shall be entitled to hold any appointment as a physician or surgeon, or other medical officer in charge of sick or wounded either in the military or naval service, or in emigrant or other vessels, or in any hospital, infirmary, dispensary, or lying-in hospital, not supported wholly by voluntary subscriptions, or in any lunatic asylum, gaol, penitentiary, house of correction, house of industry, parochial or union workhouse, or poor house, parish union, or other public establishment, body, or institution; or to any friendly or other society for affording mutual relief in sickness, infirmity, or old age; or, as a medical officer of health, unless he be registered under this Act, and unless, in addition to his being duly registered, he shall also be examined and declared competent for such appointment by an examining board as hereinafter provided, and entitled to append to his name on the registry, the letters C.M.B., signifying Civil Medical Board.

2. That within the period of three months from and after the passing of this Act, it shall be the duty of the General Medical Council to appoint a Civil Medical Board, consisting of five examiners from England, five from Ireland, and five from Scotland, whose duty it will be to examine all candidates presenting themselves, who shall have passed the double examination in medicine and surgery and obtained their degrees or licenses to practice medicine and surgery from bodies legally entitled to grant such degrees or licenses, and have been duly registered as such, and that on passing such examination they shall be entitled to append to their names C.M.B. and shall be eligible to hold public appointments as provided for under Clause XI. of the amended Act.

3. That the respective local registrars for England, Ireland, and Scotland shall be the registrars for the Examining Board, and shall keep the registries and examination lists in such form as laid down by the General Medical Council, and that for such additional duties they shall be paid such salary as the General Medical Council shall allow, with the approval of the Commissioners of Her Majesty's Treasury.

4. That the Board of Examiners, as so appointed, shall be an Examining Board only, without any power to inquire into or lay down courses of education or of study.

5. That the fee for examination and certificate from the Examining Board shall not exceed five pounds, and that in case the amount so received for such examination be not sufficient to meet the expenses of the Examining Board, it shall, and may be lawful for the Lords Commissioners of Her Majesty's Treasury to award such sums as may be requisite to pay the salaries of the Boards of Examiners and their clerks.

6. That the examiners shall be appointed for three years, but not for a longer period, and shall not be eligible for re-election until after an interval of three years, and that members of the General Medical Council shall not be eligible to be appointed as Examiners.

7. That this Act shall be construed as one with the Medical Act of August 2nd, 1858, entitled "The Medical Act of 1858."

WEDNESDAY, JULY 15TH.

The programme of this day was a very full one for all that had been set down for Tuesday, after Sir D. Corrigan's Bill had been postponed, and the consideration of that Bill had itself been adjourned, and stood as the first order of the day for this afternoon.

Then a series of important notices of motion, and a lengthy report of the King and Queen's College of Physicians in Ireland stood for consideration, having been already postponed.

The first business transacted was the discussion of Sir D. Corrigan's bill. Sir Dominic supported his proposals with his usual eloquence, and he was seconded by Dr. A. Smith.

When the motion was put to the vote it was negatived. The only members who voted for it were the mover and seconder. The president, Dr. Macnamara, and Sir W. Gull, did not vote. There were, therefore, only 2 for, and 19 against.

Dr. Humphry moved, and Dr. Parkes seconded :

"That in the case of the certificates presented before admission to the examinations of the several licensing bodies, each should include a statement from the teacher or teachers that the candidate had satisfactorily attended examinations, from time to time, held on the subject of study to which the certificate relates."

This resolution was adopted.

Dr. Andrew Wood moved, and Dr. Begbie seconded :

"That it is desirable that, in the examinations on several of the subjects of the curriculum—such, for example, as botany, zoology, chemistry, and materia medica—the area of examination should be limited and defined."

This was agreed to.

Dr. Humphry moved, and Sir Wm. Gull seconded :

"That it is important that two examiners, or an examiner and assessor should be present at every clinical as well as oral examination."

Each of these resolutions gave rise to a good deal of discussion, though they were all ultimately agreed to. By this time, however, 6 o'clock had arrived, and further business was deferred until the next day.

THURSDAY, JULY 16TH.

The minutes of the last meeting having been read and confirmed,

Dr. Acland moved :

"That the Report of the Committee on the Adulteration of Food Act be received and entered on the minutes."

Mr. Quain seconded this, and it was agreed to.

It was then moved by Dr. Acland, seconded by Dr. Quain, and agreed to :

"That the Report of the Committee on the Adulteration of Food Act be considered paragraph by paragraph."

After this had been done, which occupied a considerable time, although the only change effected was reversing the first and second paragraphs, Dr. Acland moved, and Dr. Andrew Wood seconded :

"That the report, as now amended, be adopted."

This was agreed to, and the Report now stands as follows :

#### REPORT OF THE COMMITTEE ON THE ADULTERATION OF FOOD ACT, IN CONNECTION WITH QUALIFICATIONS IN STATE MEDICINE AND PUBLIC HEALTH

The Committee appointed by the General Medical Council on July 9th to consider the Report from the Select Committee of the House of Commons on the Adulteration of Food Act, 1872, in its bearings on the qualifications in "state medicine" or in "public health," instituted by any of the bodies in schedule A to the Medical Act, having duly considered the said report, have adopted the following resolutions :—

1. That no one should be eligible for the office of public analyst unless he be possessed of a certificate of competency in analytical chemistry, in the use of the microscope, and such other subjects as the Medical Council shall from time to time determine, granted by an examining board, or boards, or, as hereinafter suggested, a qualification as an officer of public health, which shall include these subjects. 2. That the office of public analyst may be held separately, or in conjunction with that of an officer of health. 3. That it is desirable that the granting the qualifications for the purpose under consideration should not be confined to any single examining board, but that one or more examining

bodies for that purpose should be established in England, in Scotland, and in Ireland. 4. That the Medical Council should have authority to define the course of instruction and the examination required for the said purposes, and to publish a list of the bodies which comply with the conditions laid down. 5. That it is desirable that it should be made lawful that the qualifications of public analyst and of officer of health should be entered on the medical register as additional qualifications when the holder is already a registered medical practitioner. 6. That a deputation from the Medical Council should be appointed to obtain an interview with the President of the Local Government Board for the purpose of conferring on the subject of the above resolutions.

—HENRY W. ACLAND, Chairman.

Dr. Humphry then proposed the following motion standing in his name.

"That in no case should the examination of a candidate by any of the licensing bodies in any subject be conducted wholly, or in great part, by the lecturer or teacher in that subject in the school in which the candidate has been educated."

Dr. Storrar seconded the motion, and it was adopted.

Dr. Humphry next moved :

"That it is desirable that observation with the microscope should form part of the examinations of candidates for a licence."

Dr. Storrar also seconded this resolution, which was carried.

The next resolution was moved by Dr. Storrar and seconded by Dr. Stokes :

"That in the opinion of the Council all examinations should, as far as possible, be objective, and conducted by persons who are experts in the subjects of the examination assigned to them ; and that in all examinations, excepting those for degrees and fellowships, the questions put should be chiefly such as have a bearing on practice."

This motion was negatived.

Dr. Andrew Wood then moved :

"That the visitations of examinations be continued, and that the Executive Committee be directed to select visitors."

Dr. Macnamara seconded this resolution, which was also carried. The Council then adjourned to the next day.

#### FRIDAY, JULY 17TH.

At one o'clock to-day the Committee of Finance assembled, as had been previously arranged, and at five minutes after two the members of the General Council took their places, with the exception of Sir William Gull, who did not put in an appearance. The minutes of yesterday having been read, discussed, amended, and agreed to, the President rose and moved that the minutes, as now amended, be confirmed. He then went on to state the nature of the interview between himself, some members of the Council, and the Local Government Board (as resolved upon previously). He explained the satisfactory results likely to follow that interview, and concluded by stating, that he hoped if he had not fully explained to the General Council all that had happened during the interview with the Local Government Board, other members of the Council that accompanied him would correct or remind him of any omission.

According to the routine for the day's proceedings, Dr. Parkes now rose and said, that in asking the question that he had given notice of he excluded Scotland ; at the same time, he hoped that his Scotch friends would enlighten him on the subject of his inquiry in so far as they were concerned. The question was—

"To ask the President if he can inform the Council whether the schemes for conjoint examinations in England and Ireland, which have been sanctioned by the Council, are being carried into effect."

Sir Dominic Corrigan invited the attention of the Council to a phrase in the "question" asked by Dr. Parkes. So far as he knew, no scheme for a conjoint examination by the English colleges had ever been agreed to by the Council. The scheme for Ireland certainly had not been sanctioned, and he was anxious to know the exact grounds on which Dr. Parkes put forward the statement he had made.

The President read extracts from various reports, commencing March, 1872, and of subsequent dates, in which suggestions for and observations on a contemplated conjoint scheme for England had been made.

Dr. Parkes considered Sir Dominic Corrigan's objections to the question he had asked, captious.

Sir Dominic Corrigan felt that the observations made by the President justified the remarks he had made. As he had said, no scheme had been sanctioned. Sir Dominic read from the published reports extracts illustrating the position he took, and denied that a conjoint scheme for Ireland had been adopted.

The President announced that the Bill intended to enable the Apothecaries' Company to take part in the conjoint scheme for medical examination had just received the Royal assent. He sincerely wished that all difficulties would be removed from the licensing bodies in order to perfect the conjoint examination scheme, and again quoted extracts from reports on the subject.

In the discussion that followed, Drs. Beunett, Wood, Storrar, and Mr. Bradford took part.

It being now agreed that the election of the Executive Committee should proceed, Mr. Quain rose and stated that during the last sitting some medical practitioners in the country wrote to know if representatives from them should not get seats at the Board. He wished that members, when they went to ballot, would bear in mind whether the Council could not become more of a representative body.

The President said there were six members required to form the Executive Committee, four of whom should be English, and one each for Ireland and Scotland.

The election then proceeded, and the result of the ballot being called over,

Dr. Wood remarked that on the reading over the first ballot list Ireland was not represented.

Sir Dominic Corrigan considered if the lists excluded from them Irish names, and that the Committee had not on it an Irish representative, a breach of faith to Ireland would be the result.

On analysing the ballot lists, the following members of the Council had been chosen to act on the Executive Committee, exclusive of the President: Dr. Bennett, Dr. Acland, Dr. Andrew Wood, Dr. Aquilla Smith, Dr. Sharpey, and Dr. Quain.

It was proposed by Dr. Apjohn :

1. "That the Medical Council are of opinion that the number of *paper* questions in chemistry should not be less than ten, and that there should be no limit as to the proportion of those which the student is required to answer.

2. "That one-half of said questions should relate to general chemistry, and that the remainder should be taken from such departments of chemical science as have a bearing on physiology, pathology, and medical jurisprudence.

3. "That the *vivâ voce* examination should be such as would test the ability of the student to solve a few of the most simple problems in qualitative analysis, and apply to their respective uses the volumetric solutions of the *British Pharmacopœia*."

Dr. Apjohn contended that it would be quite impossible for a couple of questions to be a sufficient test in chemistry. In the interest of the student he stated this much in respect to the first part of his motion. Regarding the second portion of it, it must be obvious that the student should be required to have a knowledge of physiology, pathology, and medical jurisprudence. The third portion of the motion he maintained should be such as to test the ability of the student, to solve problems in qualitative analysis, and voluminous solutions of the *British Pharmacopœia*.

Dr. Parkes seconded the resolution, and in doing so bore testimony to the high character all acknowledged to Dr. Apjohn in chemical matters. For his part, he did not mean to enter into details—such was not advisable. He considered that the student should have placed before him a great many simple and practical questions. He agreed with Drs. Wood and Storrar that the examinations should be to test the student fully and practically.

Dr. Sharpey did not consider the number of questions should be at all fixed upon before examination.

Dr. Aquilla Smith believed ten questions a fair average for both examiner and candidate.

Professor Turner could not agree to the resolution. He agreed with Dr. Parkes that details should not be entered into, and chemistry should be deferred until physiology and pathology had been examined in by candidates.

Sir Dominic Corrigan thought that it would be quite out of their power to pass between the candidate and the examiner.

On a division being called for, the motion became lost by two votes.

Proposed by Dr. Smith: "Consideration of tables showing results of examination," as follows:—

Dr. A. Smith moved that the report be entered on the minutes; this was seconded by Dr. Macnamara.

# TABLE SHOWING RESULTS OF PROFESSIONAL EXAMINATIONS FOR DEGREES, DIPLOMAS, AND LICENCES GRANTED IN 1873 BY THE BODIES IN SCHEDULE A OF THE MEDICAL ACT.

LICENSING BODIES.	DEGREES AND DIPLOMAS.	No. of Examinations to be passed.	FIRST EXAMINATION.		SECOND EXAMINATION.		FINAL EXAMINATION.	
			No. Rejected.	No. Passed.	No. Rejected.	No. Passed.	No. Rejected.	No. Passed.
Royal College of Physicians of London ...	Licence ...	2	1	3	...	...	12	76
	Membership ...	3	...	...	...	...	3	12
Royal College of Surgeons of England ...	Membership ...	2	221	482	...	...	101	369
	Lic. in Midwifery ...	1	...	...	...	...	2	4
	Fellowship ...	2	45	49	...	...	15	18
Society of Apothecaries of London	Licence ...	2	61	146	...	...	25	179
University of Oxford ...	M.B. ...	2	...	8	...	...	1	2
	M.D. ...	...	...	...	...	...	...	...
	M.B. ...	3	6	21	11	17	2	7
University of Cambridge ...	M.D. ...	1	...	...	...	...	...	2
	M.C. ...	1*	...	...	...	...	...	...
	L.M. ...	2	...	3	...	...	...	3
University of Durham ...	M.B. ...	1	...	...	...	...	...	1
	M.D. ...	...	...	...	...	...	...	...
	M.C. ...	2	...	3	...	...	...	8
	M.B. ...	3	Preliminary	Scientific	1st M.B.	1st M.B.	2nd M.B.	2nd M.B.
	M.D. ...	1	76	67	8+	34+	5	22
University of London ...	B.S. ...	1	...	...	...	...	4	17
	M.S. ...	1	...	...	...	...	...	5
Royal College of Physicians of Edinburgh ...	Licence ...	2	6	10	...	...	48	132
Royal College of Surgeons of Edinburgh ...	Licence ...	2	4	7	...	...	11	35
Faculty of Physicians and Surgeons, Glasgow ...	Licence ...	2	29	21	...	...	9	17
Royal College of Physicians and Royal College of Surgeons of Edinburgh ...	Licence in Medicine and Surgery	2	30	36	...	...	25	76
Royal College of Physicians of Edinburgh and Faculty of Physicians and Surgeons of Glasgow	Licence in Medicine and Surgery	2	4	9	...	...	11	22
	M.B. ...	...	...	...	...	...	...	...
University of Aberdeen ...	M.D. ...	By promotn.	...	...	...	...	...	23
	M.B. and M.C. ...	3	9	72	12	62	12	56§
University of Edinburgh ...	M.B. ...	3	77	110	16	105	11	77
	M.D. ...	Thesis	...	...	...	...	4	24¶
	M.B. and M.C. ...	3	42	43	21	46	8	43**
University of Glasgow ...	M.D. ...	2	1	2	...	...	1	1
	M.D. ...	Thesis	...	...	...	...	4	11
	M.B. ...	3	...	1	...	1	...	11+
University of St. Andrew's	M.D. ...	1	...	...	...	...	...	10
	M.C. ...	...	...	...	...	...	...	...
King and Queen's College of Physicians in Ireland ...	Lic. in Medicine	2	...	...	...	...	18	73
	Lic. in Midwifery	1	...	...	...	...	9	52
Royal College of Surgeons in Ireland ...	Licence ...	3	83	123	6	131	19	131
	Lic. in Midwifery	1	...	...	...	...	...	19
	Fellowship ...	3	1	20	...	...	...	20
Apothecaries' Hall, Dublin ...	Licence ...	2	8	39	...	...	6	30
	M.B. ...	2	Vide Table	subjoined ††	...	...	Deg. M.B.	Deg. M.B.
University of Dublin ...	M.C. ...	3	...	...	...	...	9	35
	M.D. ...	Thesis	...	...	...	...	1	7
Queen's University in Ireland	M.D. ...	2	53§§	72	...	...	21	44
	M.C. ...	1	...	...	...	...	15 ¶¶	40

\* In addition to the Examinations for Degree of M.B.

† Of these, 3 were amongst the Candidates who proposed to go through the Examination with the exclusion of Physiology, and 1 was amongst those who, having previously passed the Examination with the exclusion of Physiology, presented himself to be examined in Physiology only.

‡ Of these, 10 availed themselves of the option of reserving their Examination in Physiology for a future year, and 4 who had previously exercised the same option passed in Physiology only.

§ Of these, 41 took M.B. and C.M., 8 M.B. alone, and 3 did not graduate. 1 took M.D. only.

|| Of these 67 took M.B. and C.M., 4 M.B. alone, 2 took M.D. (each of the last 2 having given in a Thesis), and 4 did not graduate.

¶ There were 28 Candidates for the Degree of M.D. Of these, 24 passed and 4 were remitted in consequence of their Theses having been insufficient.

\*\* Of these, 38 took M.B. and M.C. 5 M.B. only.

†† Passed M.B. and C.M. also.

## ‡‡ HALF M.B. EXAMINATIONS.

Subjects.	Candidates.	Rejected.	Passed.
Anatomy (Descriptive).....	56	18	38
Chemistry.....	68	7	59
Botany.....	69	4	65
Materia Medica.....	64	18	46
Physics.....	47	..	47

§§ Of these, 11 passed at a subsequent Examination within the year.

||| Of these, 7 passed at a subsequent Examination within the year.

¶¶ Of these passed at a subsequent Examination within the year.

The letter and report received by the Council from the King and Queen's College of Physicians in Ireland, were next considered.

Dr. Storrar objected loading the proceedings of the Council with such reports. They should have a printing office, if this were allowed.

Dr. Apjohn considered the report should be entered.

Dr. Leet did not think it fair to enter on the minutes the report. The original report has not been before the Council, and as a representative of the Apothecaries Hall of Ireland, he objected placing on the minutes the report of one body only.

Dr. Fleming proposed that the report be published as an appendix.

Sir D. Corrigan thought the report a private matter; the University of Dublin, King and Queen's College of Physicians in Ireland, Royal College of Surgeons and Apothecaries' Hall agreed to a report, and the College of Physicians simply took on themselves to publish it.

Professor Turner proposed the following amendment in reference to the matter. It was seconded by Dr. Storrar and passed.

"That the Council acknowledge receipt of the letter and report from the King and Queen's College of Physicians in Ireland, and thank the College for their courtesy in forwarding them."

The following is the correspondence and report referred to:—

King and Queen's College of Physicians, Ireland,  
7th July, 1874.

DEAR SIR,—By this post I send you 25 copies of the report of the College upon the report of the Committee of Reference, which this College adopted at a special meeting held yesterday.

I am, dear Sir,

Yours faithfully,

J. MAGEE FINNY, Registrar.

FRANCIS HAWKINS, Esq., M.D.,  
Registrar, General Medical Council.

Report (May 1874) of the King and Queen's College of Physicians in Ireland of the Report Committee of Reference, respecting the education and examination of candidates desirous of obtaining licence to practise medicine and surgery through the Conjoint Examination in Ireland, instituted under Section XIX of the Medical Act (1858), by the following authorities:—The University of Dublin, the King and Queen's College of Physicians in Ireland, the Royal College of Surgeons, Ireland, the Apothecaries' Hall of Ireland.

#### TIMES AND PLACES FOR HOLDING EXAMINATIONS.

1. That the Preliminary Examination be held at Trinity College, Dublin, twice annually, during the months immediately preceding the Winter and Summer Sessions.

2. That the first professional examinations be held in the months of April, July, and December respectively, and that the final professional examinations be held one in each month during the year, except in the summer vacation, which shall include the months of August and September; but, that in case of emergency it shall be in the power of the Committee of Reference to fix an examination in the months of August or September.

3. That the first professional examination (with the exception of practical pharmacy) be conducted alternately at Trinity College and the Royal College of Surgeons.

4. That the final examination (with the exception of operative surgery), be conducted, alternately, at the King and Queen's College of Physicians and the Royal College of Surgeons; and that the examination in operative surgery be conducted at the Royal College of Surgeons.

#### MODE OF CONDUCTING EXAMINATIONS.

5. That each candidate shall be examined by two examiners in each of the subjects for the first professional or final examinations (with the exception of practical pharmacy), in which he shall be subjected to one examiner only.

6. That in the case of a smaller number of examiners than those enumerated in the schedule of the scheme being employed in the examination of candidates in any subject, such examiners shall be selected by rotation.

#### FIRST PROFESSIONAL EXAMINATION.

7. The first professional examination shall be conducted by papers and orally, in each of the subjects; with the exception of practical pharmacy, which shall not include any written examination.

8. That the first day of the first professional examination shall be devoted to the answering of the printed questions, and that the candidate shall be allowed from 10 o'clock a.m., to 1 o'clock p.m., to answer questions on anatomy and physiology;

and from 3 o'clock p.m., to 6 o'clock p.m., questions on botany, materia medica, and chemistry; one hour and a half being devoted to chemistry, and one hour and a half to botany and materia medica.

9. That the oral and practical part of the first professional examination shall commence on the day succeeding the written examination. The attendance of each candidate at this part of the examination shall be for not more than one hour and a half in chemistry and pharmaceutical chemistry, and for not more than one hour in each of the other subjects.

#### FINAL EXAMINATION.

10. The final professional examination shall be divided into three parts, and be conducted in the following order:—

1. Clinical medicine, clinical surgery, and operative surgery; 2. Examination by printed questions on all the subjects; 3. *Viva voce* examination on all the subjects.

11. Each candidate shall be required to attend, at a time, and at a hospital specified, for the purpose of clinical examination, in cases in medicine and surgery, for one hour in medicine, and one in surgery.

12. Each candidate shall be examined on surgical instruments and appliances, and shall be tested by operations on the dead subject.

13. Each candidate shall be allowed one hour and a half for answering the printed questions on each subject.

14. The attendance of each candidate at the oral part of the examination shall be for not more than one hour in any one subject.

#### COURT OF EXAMINERS AND METHODS OF JUDGING CANDIDATES ANSWERING.

15. That the Court of Examiners at both the previous and final examinations shall consist of the chairman and the examiners who have taken part in the examination.

16. That the Chairman of the Court of Examiners shall be a member of the Committee of Reference, appointed for each examination by the committee from the representatives of the various medical authorities co-operating in the scheme.

17. That the question of the passing or rejecting of a candidate, at either of the professional examinations, shall be decided by the votes of the members of the Court of Examiners who have taken part in his examination, upon a review of the candidate's answering in each and all of the subjects.

18. That in the case of a candidate, who has shown himself deficient in one only of the subjects of the previous professional examination, it shall be in the power of the Court, if they are unanimous in their opinion, to remit him to a subsequent examination in that subject alone.

19. Each examiner shall mark each candidate on a scale from 0 to 10; 0 signifying no answering, and 10 signifying complete answering.

20. The Committee of Reference shall, as soon as convenient after each examination, report to the co-operating authorities the results of the examination, and such other matters pertaining thereto as the committee may deem it advisable to bring under the notice of the authorities.

#### FEES—PAYMENT OF EXAMINERS AND SECRETARY.

21. That the fees to be charged shall be as follows:—For the preliminary examination in arts, £2 2s.; For the previous professional examination, £15 15s.; For the final professional examination, £15 15s.

22. That no portion of the fee for the preliminary examination shall be returned a rejected candidate, but that he shall be permitted to present himself for re-examination on payment of a further fee of one guinea. 23. That the admission fee, with the exception of five guineas, deducted to meet the expense of the examination, shall be returned to any candidate who may be rejected at either of the professional examinations; and an extra fee of two guineas shall be charged each candidate for his re-examination on any subject upon which he may have been remitted. 24. That each examiner in chemistry, in anatomy and physiology, in medicine, and in surgery, shall receive fifteen shillings, and each examiner in the other subjects seven shillings and sixpence, for each candidate examined by him. 25. That a secretary be appointed to transact the business arising in connection with the Conjoint Scheme, under the directions of the Committee of Reference and that he be paid a salary of £ a year.

#### FINANCE.

26. All moneys payable on account of examinations held under "the Conjoint Examining Scheme for Ireland" shall

be lodged in the Bank of Ireland to the credit of the "committee of reference of the Conjoint Examining Scheme."

27. That cheques shall be drawn only in pursuance of a vote of the committee of reference. That such cheques must be signed by the chairman of the meeting at which such payment is ordered, and by one representative of the College of Physicians, and one representative of the College of Surgeons. 28. The committee of reference shall twice, annually, present to the co-operating medical authorities a statement of their accounts, made up to the 30th of September and 31st March respectively, and duly audited by two auditors (one appointed by the College of Physicians and one by the College of Surgeons). That the committee of reference shall, having discharged all liabilities, pay over to the College of Physicians and Royal College of Surgeons the surplus, in the proportions provided in Sect. 15 of the Scheme.

#### CURRICULUM OF STUDY

*To be required of Candidates desirous of obtaining Licence to Practise Medicine and Surgery through the Conjoint Examination in Ireland.*

Candidates shall be required to produce documentary evidence—1. Of having been engaged in the study of medicine for four years. 2. Of having passed the Preliminary Examination in manner defined in Sect. V. of the Conjoint Examining Scheme, or an equivalent examination, approved by the committee of reference. 3. Of having studied at any recognised medical school or schools, the following subjects for the periods specified, viz.:—Practical Anatomy with demonstrations and dissections: for two winter sessions. Anatomy and Physiology: for two winter sessions; or Anatomy and Physiology: for one session: and Institutes of Medicine: for one session. Botany: for three months. Chemistry: for one winter session. Practical Chemistry, with Instruction in the Laboratory: for three months. Materia Medica: for three months. Practical Pharmacy: for three months. Principles and Practice of Medicine: for one winter session. A Course of Practical Medicine, to consist of not less than twenty meetings of the class. Principles and Practice of Surgery: for one winter session. Operative Surgery: for three months. Midwifery: six months' course of lectures. Medical Jurisprudence: for three months. Public Health: for three months. 4. Of having attended a recognised clinical hospital for twenty-seven months, during which, regular courses of clinical instruction are delivered. 5. Of having attended practical midwifery at a recognised lying-in hospital, or maternity, for six months, and conducted ten cases of labour.

*Preliminary Examination.*—Candidates for the preliminary examination shall produce evidence—Of having lodged in the Bank of Ireland to the credit of the committee of reference the sum of two guineas.

*First Professional Examination.*—Candidates for the first professional examination shall produce evidence—1. Of having passed the preliminary examination. 2. Of having lodged in the Bank of Ireland to the credit of the committee of reference the sum of fifteen guineas. 3. Of having been engaged in the study of medicine for two years. 4. Of having attended a recognised clinical hospital for nine months. 5. Of having been engaged for two winter sessions in the study of practical anatomy, with demonstrations and dissections, and of physiology. 6. Of having attended one course of lectures on each of the following subjects:—Anatomy and physiology, botany, chemistry, and materia medica. 7. Of having been engaged for three months in the study of practical chemistry, and three months of practical pharmacy.

*Final Professional Examination.*—Candidates for the final professional examination under the Conjoint Examining Scheme, shall produce evidence, in addition to that required previous to admission to the first professional examination—1. Of having passed the first professional examination under the Conjoint Scheme, or having fulfilled the conditions provided in Section 12 of the Conjoint Examining Scheme. 2. Of having lodged in the Bank of Ireland, to the credit of the committee of reference, the sum of fifteen guineas, except in the case of graduates in arts, when it shall be five guineas, as provided in Sect. 16 of the scheme. 3. Of having been engaged in the study of medicine for two years. 4. Of having attended a recognised clinical hospital for

eighteen months. 5. Of having been engaged for one winter session in the study of practical anatomy, with demonstrations and dissections. 6. Of having attended one course of lectures on each of the following subjects:—Anatomy and physiology or the institutes of medicine, practice of medicine, practical medicine, surgery, operative surgery, midwifery, medical jurisprudence, and public health. 7. Of having attended for a period of six months a recognised lying-in hospital or maternity, where clinical instruction is given, and conducted thirty cases of labour.

Moved by Dr. Fleming, seconded by Dr. Apjohn.

"That it be an instruction to the registrars before they enter the name of any applicant for registration on the *Medical Register*, to ascertain by reference to the register of *Medical Students*, whether the period of time required by the Medical Council to be devoted to professional study, has elapsed between the date of the applicant's registration as a student of medicine and the date of his license. And further, that the registrar of each branch council shall report to his Council any case where this has been departed from, and take instructions from them as to any future proceeding.

Dr. Fleming considered the time had come when it became necessary to entertain this matter, all old students, not coming under the four years of study test, have been by this time disposed of; the motion proposed he believed to be a good and practical one.

Sir D. Corrigan considered it quite out of the province of the Council to pass the resolution, and according to the Act of Parliament, it could not be entertained. Having read the section of the Act bearing on the point, he believed the Council would be open to actions if the resolution were passed and acted on.

Dr. Storrar sympathised with Dr. Fleming in the matter, yet he felt he should advise Dr. Fleming to withdraw this resolution.

The President quite agreed with Dr. Fleming, but he considered the resolution was open to the objections stated by Sir D. Corrigan.

On a vote being taken the motion was lost.

The following question by Dr. A. Smith was then submitted to the Council:

"Dr. A. Smith will ask the representative of the University of Aberdeen if any proceedings have been taken by that University respecting an M.D. of Aberdeen, who was sentenced to four months' imprisonment at Inverness Circuit Court for fabricating certificates of vaccination."

Professor Turner in reply, stated as name and date were omitted, all he could do was to bring the case alluded to before the authority of his College for investigation.

Mr. Bradford moved and Dr. Storrar seconded:

"That certain correspondence between the Society of Apothecaries and the Lord President of the Council be now read, and placed on the minutes

"Also, that a letter from the Master of the Society of Apothecaries, dated 5th June, 1874, addressed to the President of the General Medical Council, be also read."

Mr. Bradford gave a detailed account of the correspondence between the Lord President and apothecaries, as relating to the bill that has just received the royal assent, and ended by proposing, and Dr. Storrar seconded:

"That the letters be entered on the minutes, the objection to their publication having ceased to exist."—Carried *nem. con.* (This correspondence shall appear in our next issue.)

This "question," by Dr. Andrew Wood, was then put to the Council:

"Dr. Andrew Wood to ask the representative of the Royal College of Surgeons of England if the name of Matthew Bass Smith, which was removed by the Medical Council from the *Medical Register* at its last session, is still on the roll of members of the Royal College of Surgeons of England."

Mr. Quain explained that the law adviser to the College gave it as his opinion that they had not the power to expunge the name from the College rolls. Last year the Council took up the matter, and the law adviser of the Council gave it as his opinion they had not the power to act as they contemplated. Subsequently Mr. Quain applied to the College to see if a bye-law to meet similar cases could not be passed, and received a reply that the College was progressing in framing a law to that effect.

Dr. Macnamara moved:

"That, with a view to its being either amended, or to being recommended to the Executive Committee to act in accordance with its provisions for the future, he will draw the



attention of the Council to standing order XIV., section 2 ;"—viz.:

"That a form for appointing members be prepared, and sent by the registrar to the secretary of State (Lord President of the Privy Council ?), and to each body having power to appoint, two months before the expiration of the term of the existing appointment, so that the new appointment may be made to take effect from the day on which the old appointment shall expire.

Dr. Macnamara explained the object of his motion was to prevent a hitch in the working of the Council. He gave extracts from the Act, and from the proceedings of the Irish College of Surgeons. He considered if the standing orders relating to these matters were wrong they should be revised. Great delay and inconvenience arose from this matter on the resignation of Mr. Hargrave, and his subsequent election to the office of councillor, and to obviate a recurrence of it he invited the Council to the serious consideration of his motions.

It being six o'clock the Council adjourned until to-morrow at noon.

#### SATURDAY, JULY 18TH.

At twelve o'clock to-day the Council assembled; the previous proceedings having been read and confirmed, the President proposed their insertion on the minutes, which was agreed to.

Dr. Apjohn then moved

"That the President be requested to ask Mr. Macnamara, for the information of the Medical Council, whether the Royal College of Surgeons in Ireland has or has not withdrawn from the scheme of conjoint examination adopted by the King and Queen's College of Physicians (June 28, 1872), and agreed to by the University of Dublin, the Royal College of Surgeons in Ireland, and the Apothecaries' Hall of Ireland; and sanctioned by the General Medical Council (March 31, 1873)." And having done so proceeded to say he held no hostility to the Royal College of Surgeons, quite the contrary. He then read from the *MEDICAL PRESS AND CIRCULAR* of the 19th March extracts from the report of meetings of the Royal College of Surgeons bearing on his motion. He did not consider it necessary to go far into the subject, as he left the matter in the hands of the College's most indefatigable representative, Dr. Macnamara.

The President having put the question:

Replying to the motion of Dr. Apjohn, Mr. Macnamara commenced by saying that in the first place he considered it necessary for him to make a few observations as to the organization of the Royal College of Surgeons of Ireland, and the mode by which its executive are elected. The fellows of the College annually elect the members of Council, and the twenty-one members of Council have the entire charge of the affairs of the College during the term of office, which is for twelve months. Regarding the motion of Dr. Apjohn, there seems a difficulty in reconciling the Fellows as to the mode by which the conjoint scheme should be carried out. During the month of May in each year the annual meeting of the Fellows of the College takes place, and in the subsequent month, June, the Council is elected, but long prior to that time the annual report of the College is issued and in the hands of the Fellows. The conjoint scheme is received by some unfavourably, and others are hostile to it; others are unfavourable to the proposed mode by which it is to be applied. Dr. Wharton and himself (Mr. Macnamara) were appointed by the Council to report on the applicability of the scheme to the Irish College of Surgeons, and they did so. A meeting of the Fellows was held, the subject was discussed, and they decided not so much against the scheme, but against the mode by which the scheme was to be worked out. At a subsequent meeting fourteen out of seventeen members of the Council voted in favour of the scheme, and at the annual election which followed a majority of those elected to serve as councillors were upholders of the scheme. Nothing could have spoken more "trumpet-tongued" than this fact in favour of the object aimed at; and to show with what importance the proceedings were regarded nearly 200 Fellows voted—more than ever before—even the year of what was called the "big fight" there voted only about 170. Mr. Macnamara concluded his telling and incisive remarks by thanking Professor Apjohn for having given him the opportunity of placing his College, in its relation with the proposed conjoint scheme of examination, in its true light before the Council.

Then Dr. Apjohn moved, and Dr. Parkes seconded the following resolution:

"That the Council thank Mr. Macnamara for his reply to the inquiry of the President, and are glad to find there is a

fair prospect that the Royal College of Surgeons in Ireland will eventually give its influential co-operation in carrying out the Irish scheme of conjoint examination, which has been sanctioned by the Medical Council."

Moved by Dr. Macnamara; seconded by Dr. Leet:

"That, in the opinion of this Council, all examinations on anatomy should, so far as practicable, include the performance by each candidate of actual dissections; and, that all those on surgery should include the performance by each candidate of two or more operations on the dead subject."

In submitting this motion, Dr. Macnamara wished to say that in the University of Dublin, the College of Surgeons, and Queen's University, for some time past the proposition now made had been adopted with marked effects. He agreed with Mr. Quain as to the earlier education of students intended for the medical profession, and it would be for their relatives to consider whether they should not adopt a profession which requires so large an amount of study. By the adoption of his proposal the use of the scalpel and a practical knowledge would be insisted on. He could not understand how certificates were given by gentlemen who had not tested the work of candidates.

Dr. Thomson considered the proposal of Mr. Macnamara included in proceedings anteriorly before the Council, and quite unnecessary to reopen. The Council did consider and agree that operative surgery was quite essential.

Dr. Wood said the Council having expressed their opinion, no strict or stringent rule in the matter should be laid down at present.

Dr. Fleming agreed with Dr. Wood that the resolution was unnecessary, as in all licensing bodies practical anatomy was required.

Mr. Quain believed certificates, such as Mr. Macnamara stated, should not be given. He did not consider it expedient to lay down rules. Ordinary practitioners might be, in some cases, operative surgeons—they need not be so—yet still perform the duties of their stations effectively.

Mr. Macnamara felt greatly pained that his proposal received opposition. He did not consider this would be the case, especially by such an eminent surgeon as Mr. Quain. He, nevertheless, believed operations on the dead subject was a great improvement. He believed his motion of so general a character as to merit the sanction of such an important body as the General Medical Council.

[As the opinion of the Council had not been sufficiently matured on the matter, at the suggestion of Dr. Allen Thomson the motion was withdrawn.]

The Report of the Pharmacopœia Committee as follows was now read by the Secretary:—

"The Pharmacopœia Committee beg to report that the resolutions adopted by the Council at its last meeting in reference to the publication of a reprint of the *Pharmacopœia*, and of certain additions, in the form of a supplement, have been carried out.

"Five thousand copies of the reprint have been prepared, and with them a corresponding number of the additions have been bound up for sale, without any addition to the price of the work.

"Ten thousand copies of the additions have been bound separately. The price of these copies has been fixed by the Executive Committee at 9d. each.

"The cost of printing the reprint and the additions, together with the amount paid to Dr. Redwood for preparing and seeing both works through the Press, amounts to £738 18s. 6d.

"Nearly one thousand copies of the reprint, and 6,500 copies of the additions have been sold since publication; realising the sum of £376 13s. 6d., and leaving on hand, stock, the value of which is estimated at £391 16s.

"The Committee beg to recommend that the Pharmacopœia Committee be reappointed, and that it consist of five members.

"They also recommend that the duties of the Committee be to superintend all matters relating to the *Pharmacopœia*, more especially to consider the publication hereafter of a new edition of the work, and of the steps which should be taken for its preparation.

"The Committee beg to state that there are no outstanding liabilities on account of the *Pharmacopœia*.

"A statement of the debtor and creditor account of the reprint and additions of the *Pharmacopœia* is appended.

"W. SHARPET, Chairman.

"July 16th, 1874."



It was now moved by Dr. Sharpey, and seconded by Dr. Bennett, "that the report be received and adopted."

A desultory discussion followed, in which Drs. Apjohn, Smith, Wood, Quain, Bennett, Sharpey, and Storrar, and Mr. Quain took part.

Sir D. Corrigan proposed that the third paragraph, page 5, of the report be omitted.

Proposed by Professor Turner, "that after the word *Pharmacopœia*, 7th paragraph, and page 5, the remainder of the paragraph should be omitted."

Seconded by Dr. Storrar, and agreed to.

Dr. Quain proposed, seconded by Dr. Wood, "That the following Pharmacopœia Committee be appointed: Drs. Quain, Begbie, Bennett, Sharpley, and Smith."

Moved by Sir Dominic Corrigan:

"That the attention of the Pharmacopœia Committee be requested to the desirability of correcting, in any future edition of the *Pharmacopœia*, the approximate solubilities of salts and other substances under the head of characters and tests, instead of the present indefinite information afforded in the present *Pharmacopœia*."

Sir D. Corrigan stated he had great difficulty in prescribing occasionally on account of the solubility of the different salts not being fully mentioned in the present edition of the *British Pharmacopœia*.

Dr. Smith seconded the resolution. Carried.

Dr. Leet proposed; seconded by Mr. Quain:

"That this Council consents to the proposal that the Apothecaries Hall of Ireland be allowed to appoint three examiners, instead of one, in practical pharmacy, under the scheme for the formation of a conjoint examination in Ireland, bearing date the 28th of June, 1872."

Dr. Smith believed the Council had not the power to send what he considered an "instruction" to the Apothecaries Hall in Ireland. The proposal was agreed to.

The President now read a list of examining bodies whose examinations fulfil the conditions of the Medical Council, as regards preliminary education, recommended by the Executive Committee. The Committee recommended that the list be the same as last year, with the addition of "The Oxford and Cambridge Schools Examination Board."

After a short discussion on the subject, Dr. Humphry moved, and Dr. Storrar seconded:

"That in addition to the examinations already recognised by the General Medical Council, the junior local examinations conducted by the English universities should be recognised for the preliminary education of medical students, provided that Latin and mathematics—and also one of the following optional subjects, viz., Greek, French, German, natural philosophy, including mechanics, hydrostatics, and pneumatics—are among the subjects included in the pass certificate."

Moved by Dr. Humphry and seconded.

Dr. Humphry said: "It may appear somewhat informal to bring the matter forward in the present manner, but on account of causes to which he might allude, he considered it advisable to do so." Having read a report of a committee of teachers suggesting there should be less diversity of examinations, and that examining boards should examine in the preliminary of medical students, he forcibly put his views before the Council.

A discussion followed, in which Drs. Quain, Acland, Begbie, and Sir Dominic Corrigan, Dr. Storrar, Professor Turner, Dr. Wood, and Dr. Parkes took part. The motion was carried.

On the motion of Dr. Wood, seconded by Sir D. Corrigan, an adjournment of twenty minutes was agreed to.

Moved by Dr. Bennett, seconded by Dr. Bradford:

"That the Council do express their satisfaction at learning from the statement of the President, and by the documents laid before them by the Representative of the Royal College of Physicians of London, that the arrangements for carrying out the scheme for a conjoint examining board for England are so far advanced as to render it probable that the scheme will be in operation during the present year; and that, with the exception of the Society of Apothecaries, all the English licensing bodies have concurred in the scheme, and have appointed their representatives on the Committee of reference, by whom the necessary regulations have been framed. The Council are further pleased to learn that the Society of Apothecaries have obtained by a recent Act of Parliament the means they required to enable that body also to join the scheme, and thus to fulfil the desire expressed by the Council in their minutes of March 1, 1872, that the scheme as

sanctioned by them should be rendered a complete scheme for a conjoint board for England."

In doing so, he stated that now the Act of Parliament had been passed authorising the Apothecaries' Society to join in the conjoint scheme all difficulties were removed. Carried.

Moved by Dr. Humphry, seconded by Dr. Wood, and carried:

"That the executive Committee be requested to revise the "recommendations and opinions of the General Medical Council; to incorporate with them resolutions 2, 3, 4, 11, and 12, (see minutes, pp. 51 and 60), and to forward the recommendations and opinions so amended to the several licensing bodies." Agreed to.

The report of the finance Committee was then read by the Secretary.

#### "REPORT."

"The Finance Committee beg leave to submit to the Council a statement of the *income* and of the *expenditure* of the Council during each of the years 1872 and 1873, and of the estimated *income* and *expenditure* for the year 1874.

"It will be seen that the actual *income* for the year 1873 was less by the sum of £768 16s. than that of the year 1872. This difference is almost entirely due to the exceptionally large amount of fees received for registration by the several Branch Councils in 1872, and not to any special decrease in the *income* of the year 1873, which was not below the average. It will also be seen that the balance in favour of *income* in 1872 was £2,260 8s. 7d., whilst in 1873 the balance amounted to only £212 17s. 6d. This difference is due to the fact of the Council having sat during only five days in 1872, whilst in 1873 the sittings of the Council extended to nine days; further, it will be observed, that a sum of £598 10s. has been expended in 1873 on account of the visitations of examinations. On this point the Committee think that it may interest the Council to know that a further sum of £301 18s. has been paid on account of these visitations, which will be included in next year's account, making the entire cost of the visitations £900 8s.

"With respect to estimate for the present year, the *income* will probably not be less than that of the preceding year, whilst the estimated *expenditure* has been necessarily increased to meet the charges which will accrue in connection with the occupation of the new premises.

"The Committee beg to mention that they have received a letter from the Clerks to the Council, Messrs. Bell and Roope, which they have referred to the Executive Committee, who have authority to deal with the subject of the letter, in accordance with the minutes of the General Council, April 3, 1873.

"RICHARD QUAIN, M.D.

"July 17, 1874."

Proposed by Dr. Sharpey; seconded by Dr. Flemming:

"That the report be received and entered on the minutes." Agreed to.

Proposed by Dr. Quain; seconded by Sir Wm. Gull:

"That the report be adopted." Agreed to.

The President announced the programme ended, and the time had come, when—

Sir Wm. Gull now rose and said: "Before you proceed, Sir, will you allow me to read this document which I hold in my hand. It has been unanimously signed by the Council. [Sir Wm. Gull then read the document, which stated the wish of the Council that Dr. Acland might be induced to act as President.]

When Sir Wm. Gull had completed the reading of the paper—

Dr. Paget rose and said, that he was aware for some days past of the desire of the Council, nevertheless, he felt it would be quite out of his power to deviate from his previous determination. The sheet of autographs placed in his hands he should certainly consider to be one of the most precious documents he possessed. He felt acutely the pain of separating from colleagues with whom he had worked so long and so harmoniously. With the deepest thanks, that he could not sufficiently express, he should retire, and the two keys of his office he should hand to Dr. Stokes for his successor. [Dr. Paget handed the keys to Dr. Stokes, shook hands with the members of the Council most warmly, and then retired.]

Moved by Dr. Wood, seconded, and carried by acclamation:

"That Dr. Stokes take the Chair."

Dr. Wood rose and proposed:

"That this Council cannot part with their late President, Dr. Paget, without expressing to him their great obligations for his services as their President, services which have been so

ungrudgingly devoted, at large sacrifices to himself, for the good of the Council and the profession—for the uniform courtesy of his demeanour—for the impartiality of his decisions—for the discretion of his conduct in the chair—which have secured for him the esteem and affection of the members of the Council, and have conduced greatly to the efficiency of the action of the Council in raising the status of the medical profession."

Seconded by Sir D. Corrigan, and passed amid enthusiastic applause.

At this juncture the reporters were desired to retire. Dr. Acland preceded them on their readmission, when Dr. Stokes informed him that he had been elected President. Having taken the chair he thanked the Council for the great honour conferred upon him. He regreted the retirement of Dr. Paget. He spoke of the great services rendered the Council by Sir B. Brodie, Mrs. Greene, Burrows, and now, the late President. He should not forget the responsible duties they had placed upon him. After sixteen years in connexion with them, and thirty years of his public life, he should follow the footsteps of his predecessors.

Dr. Smith proposed:

"That the powers and duties heretofore delegated to the executive Committee shall be vested in the said Committee until the next meeting of the General Medical Council."

Dr. Begbie seconded this resolution. Passed.

Moved by Dr. A. Smith, seconded by Dr. Begbie, and agreed to:

"That the cordial thanks of this Council are due and are hereby tendered to Dr. Andrew Wood, for his services as Chairman of the business committee during the present session of the Council."

Moved by Dr. A. Smith, seconded by Dr. Begbie, and agreed to:

"That the thanks of the Council are due, and are hereby tendered to the Treasurers, Dr. Quain and Dr. Bennett, for their important services."

After the transaction of a small amount of routine business, the Council adjourned. Hand-shaking, warm and hearty, accompanied by congratulatory expressions mutually and reciprocally interchanged, commenced, and ere the clock previously alluded to told the fifth hour silence reigned supreme beneath that dome where good nature, good temper, and shrewd capacity for debate revelled so recently. In verity might the retiring members of the Council address each other in the words of the poet, judging from their looks and actions, on their egress from the scene of their recent labours:

"Had we never loved so kindly,  
Had we never loved so blindly,  
Never met, and never parted,  
We had ne'er been broken-hearted."

## The Medical Press and Circular.

"SALUS POPULI SUPREMA LEX."

WEDNESDAY, JULY 22, 1874.

### HARVEIAN ORATION.

#### II.

It may not be amiss to gather a few interesting notes from the oration respecting which we spoke in our last article; for the later life of Harvey is quite as interesting as the earlier, to which we confined our remarks in our previous article. Dr. West remarked that one dares not, in an oration to commemorate Harvey, omit, how superfluous soever the mention may be, some brief statement of what his great discovery was. It was twofold:—

1. After corroborating the statements of those who had denied either that blood transudes through the walls of the ventricles, or that the pulmonary veins bring back to the left side of the heart air commingled with the

blood, he asserts that the left ventricle has no other function than that of impelling the blood brought to it through the arteries, which themselves contain blood and nothing else, not air, nor vital spirit, but blood purified by its passage through the lungs, and so made apt for the nourishment of the whole body; and

2. That while the arteries thus distribute everywhere the fresh pure blood, the veins with which they communicate bring back that same blood, no longer pure, to the right side of the heart, whence it is once more transmitted to the lungs, thence carried again revived to the left ventricle, and then once more distributed throughout the body, its changes not being those of an ebbing and a flowing tide, but the ceaseless current of an onward rushing river.

We have no means of tracing step by step Harvey's progress, or of knowing when the grand simplicity of the circulation of the blood first revealed itself to him as unquestionable truth.

Moreover of Harvey's inner life we have no record; he taught the doctrine of the circulation of the blood as early as 1615, when he held the office of Lumleian lecturer, but it was not until 1628, when he was fifty years old, that he gave to the world the full fruit of his labours, in his *Exercitatio de Motu Cordis*, which was published at Frankfort-on-the-Main. Dr. West finds few scientific treatises so interesting as this, whether one reads it in Harvey's own Latin, or in the most excellent translation of Dr. Robert Willis, and what first strikes him in reading Harvey's essay *On the Motion of the Heart*, and still more in his two letters, written years afterwards, to the younger Riolaus who had attacked his doctrine, is the exquisite courtesy of his tone towards his opponents; it is the more remarkable, since it was so little the custom of the time.

The next point brought out by the orator for 1874 is the query—What was the practical outcome of it all; what was the use, the good of the discovery of the circulation of the blood? Four years before the *Novum Organon* appeared, Harvey had anticipated its famous lesson, "*Non fingendum aut excogitandum quid natura faciat aut fiat*," and had proved beyond the possibility of refutation, what years afterwards he asserted in eloquent words, "That facts cognisable by the senses wait upon no opinions, and that the works of nature bow to no antiquity; for indeed there is nothing either more ancient, or of higher authority than nature." Still, was human life prolonged, human suffering mitigated, as the direct and immediate consequence of the discovery? To both these questions Dr. West admits we must answer *No*; but the *no* must be accompanied by two qualifications.

"1st. In the ordinary affairs of human life many things are done rightly, but on wrong, or at least on insufficient, grounds, just as in the world of morals many a man is diligent, or temperate, or chaste, on grounds far lower than the noblest. The seaman still navigated his ship in the main correctly by the stars nearly three hundred years after the use of the mariner's compass was known in Europe, and treatises on the use of the astrolabe continued to appear down nearly to the end of the sixteenth century. The Ptolemaic theory of the solar system was wrong, but it served to calculate eclipses by as well as the Copernican.

"But 2nd. We, with our narrow span of life, are

naturally in a hurry for results. What comes not in our own time seems delayed indefinitely, and we feel as little children do when they dig up the ground in their impatience to learn whether the seeds they planted have yet begun to sprout. It was thus once supposed that in the realm of nature effect followed cause in quick succession, and it was little thought how slow is the action of those powers which have by their continuance upheaved mountains, or have hollowed out deep seas. So, too, in the world of intellect the remote consequences of a discovery are long in disclosing themselves, impossible to be foreseen. No gift of second sight showed at the time to anyone the electric telegraph in Franklin's experiment made a hundred and twenty years ago. Harvey admired the skill of the artificer revealed by his researches as it had never been before; but of the practical results of those researches he saw but little; and could never have imagined with what accuracy we can now, thanks to his labours, ascertain the nature and seat of disease in each of the four cavities of the heart itself, preface its course, and even where we cannot cure, obtain at least an euthanasia for our patient, and rob death of half its terrors by depriving it of more than half its suffering."

The next part of the oration spoke of Harvey as a physician, and we fully agree with the suggestion that his fame as a discoverer has eclipsed his merits as a practical physician, and these could have been of no ordinary quality. Then came the benefactors of the College, who are always to be commemorated, but Dr. West discarded the notion that there were those who gave a little money, holding them to be those who have left the inheritance of an example, and so he spoke of Sydenham, Jenner, and Bright—men diligent in seeking the ways of nature by means of experiment, even as Harvey had done. This brought him to the objections sometimes said to exist to science as possibly opposed to religion, on which he declared that such objections as there are attach not to the facts observed, but to the inferences, the generalisations drawn from imperfect knowledge.

## Notes on Current Topics.

### The Edinburgh Chair of Physiology.

As we some months ago predicted would be the case, Dr. Hughes Bennett has now, owing to failing health, resigned the Chair of Institutes of Medicine and Physiology in the University of Edinburgh, and in him the great northern school of medicine loses a "bright particular star," whose place in the professorial firmament it will not be easy to supply. Several eligible candidates have, however, already offered themselves to fill the vacant chair. Professor Cleland, of Queen's College, Galway; Professor Rutherford, of King's College, London; Dr. McKendrick, Physiological Assistant in the University of Edinburgh; and Dr. Bell Pettigrew, Pathologist to the Royal Infirmary of Edinburgh, are all candidates, and have all high qualifications for the office which they seek. Dr. McKendrick has the special claim that he has for three winters past read Professor Bennett's lectures to his class; and Dr. Pettigrew may well urge that he is an original discoverer and a skilled lecturer, and that he has acquired a more than European renown. To us it seems that it will be difficult for any other candidate to produce a catalogue of honours and achievements at all comparable with that

which is contained in the address which Dr. Pettigrew has issued. The curators of the University of Edinburgh are men of culture and discrimination, and they will not fail to perceive who of the candidates is most deserving and most promising. For our part we have little doubt as to the result of the contest.

### The Water Supply of our Towns.

THE Local Government Board has issued a very important document to the various local sanitary authorities on the subject of a pure and wholesome water supply. The long continuation of dry weather renders this step particularly necessary at the present moment, since it may tell seriously upon the public health. The mode of water storage is also a question which demands attention. The open reservoir system is still permitted to exist in country districts, although it is known to produce serious contamination and favour the growth of animal and vegetable life. Open storage has been prohibited for years in the metropolis. Why Parliament should make one law for London and another for the densely populated provincial towns, where the same evils exist only in a less exaggerated form, it is difficult to say. At the present moment a dispute is going on, and a considerable amount of acrimonious feeling is being displayed, about the water supply of Wakefield. An action has also just been concluded on the question of the open reservoir storage of water for the town of Folkestone, and in which a highly respected member of the profession, Dr. Bowles, recovered heavy damages (£1,000) against the Secretary and Solicitor of the Water Company for defamation of character.

The circular alluded to above runs as follows:—

"I am directed by the Local Government Board to state that, in consequence of the long continuance of dry weather, their attention has been drawn to the fact that in several parts of the country the ordinary water supply has become considerably diminished, and there is reason to be apprehensive that, as the summer advances, the evils arising from this cause will be much more seriously and extensively felt. Among such evils must be included the very serious danger to health which will arise if, for want of a better supply, recourse is had to polluted water.

"Under these circumstances, the Board think it right to point out to the sanitary authority the importance of taking steps to inform themselves fully of the nature and extent of the existing water supply in the several parts of their district, and the sources which may be properly relied upon for the purpose of supplying any present or prospective deficiency.

"The Board need scarcely remind the sanitary authority that one of the chief duties which the Legislature has imposed upon them is that of providing their district with a sufficient supply of water, and the Board cannot too strongly impress upon them the expediency, at the present time, of adopting every available precaution for the storage of wholesome water in those localities which are likely to suffer from drought.

"With this view it is desirable that the sanitary authority should make a careful examination of the existing sources of supply, so that they may, as far as practicable, be economised, and that steps may be taken where necessary to obtain an additional supply.

"If any part of the district is within the limits of a water company, the attention of the company should, with the like object, be directed to the points lastly referred to.

"The sanitary authority are aware that if there is no such company, they themselves may not only construct and maintain water works, but also dig wells, and do any other acts necessary for providing a water supply for their district.

"It is, therefore, competent for them, in case of need, to provide, by means of water carts or other like expedients, a temporary supply for domestic use, and for flushing sewers and drains; and the cost attendant upon the adoption of this suggestion, which would be comparatively small, might be wholly or in part reimbursed by a moderate charge for the accommodation."

"I am directed to add that the greatest care must of course be taken with regard to the purity of the water which the sanitary authority distribute; that no supply should be used which is not perfectly safe from pollution by excremental matters or other filth; and that other impurities, if the water contains such, should be removed from it by filtration, or otherwise, before it is delivered for domestic use."

### Spectrum of Muscle.

M. RANVIER communicated on the 1st June to the Paris Academy of Sciences a note on the spectrum given by the striæ of muscles. He said a spectrum is always given by muscle, whether in a state of rest or activity. Contrary to the statement of Merkel, he says the transverse situation exists in every physiological condition of muscle. He adds that certain muscular lesions deprive the tissue of the property of giving a spectrum.

### The New Hospital for Women.

SOMEONE has sent us No. 6 of *Women and Work*, a new weekly, edited by Miss Faithful. Among other interesting matter is an account of the meeting held on behalf of the hospital established by Mrs. Garrett-Anderson, who has for some time been assisted by Miss Morgan, now Mrs. Hoggan.

Mrs. Anderson made a good speech, except that she pretended that there was loss of modesty in "servants from the country" talking to a medical man before students.

### Fradelle and Marshall's Exhibition of Photo-mezzotint Portraits.

THIS gallery, which has now existed for three years, is essentially a National Portrait Gallery, and is divided into a series of sections which include the names of most of those who are distinguished in art, science, law, and literature.

It is, however, with the medical section that we are principally concerned, as we believe that there are many members of the profession who are not yet aware of the existence of this gallery.

The catalogue contains upwards of one hundred portraits, and includes a number of the staff of the different London hospitals. King's College is represented by Professor Bentley, Dr. Guy, Mr. Henry Smith and others, all of which are striking likenesses. We were sorry to notice the absence of Sir Wm. Fergusson and his distinguished pupil, Professor Wood. Guy's and St. Thomas's are well represented, and the pleasing and characteristic likenesses of Mr. Bryant and Mr. Le Gros Clarke will at once be recognised, though, in our opinion, one of the happiest efforts in the whole gallery is the likeness of Mr. Francis Mason; the natural expression has been exactly caught; the pose is easy, and the light and shade so nicely balanced that we are compelled to admit that these clever artists, by their new method of mezzotint, are able to produce more truthful and softer likenesses than

by the ordinary method. Bartholomew's, Westminster, Charing Cross, and indeed, all the London hospitals, have their representatives; and we strongly advise those who have not yet visited the gallery to do so, as they will meet there with many old friends, and which cannot but fail to give rise to pleasant reminiscences.

When Mr. Marshall showed us round he informed us that he and his partner were endeavouring to complete the gallery by the opening of the winter session in October next.

Just prior to leaving, our attention was drawn to a new section they have lately added. The Indian—which already contains a long list of civil and military officers, and excellent likenesses of Drs. Forsyth, Leckie, Fayrer, and Gordon.

### Liability of Medical Practitioners to Consultants.

A VERY interesting trial has just taken place at Warwick in which is involved the right of a consultant to be paid without a definite contract to that effect.

The children of a Mr. Booth Mason took scarlatina, and his wife, who was in her confinement, took it from them, and died. Mr. Fenn Clarke, a general practitioner, attended the family during these occurrences, but when Mr. Booth Mason himself was attacked with symptoms of the disease, and, as was sworn, became delirious, he (Mr. Clarke) thought it right to call for other advice. Accordingly he summoned Dr. Carter, a consulting physician of the locality, and his attendance, beginning when the patient was incapable of expressing his wishes on the subject, was afterwards continued without objection, along with Mr. Clarke, when the patient was improving, and quite capable of giving directions. After his recovery, Mr. Booth Mason refused to pay Dr. Carter, alleging that he had not asked him to come, and that he considered that he attended simply to oblige and reassure Mr. Clarke. The Judge, after hearing evidence, pointed out that there was nothing to show that Mr. Clarke did not call in Dr. Carter on his own account. According to the case *Veitch v. Russell*, reported in Russell's "Law of Contracts," a physician could not recover unless a contract was actually made. The evidence does not show that Mr. Clarke communicated to the defendant that he had called in Dr. Carter, and that he thought it necessary to do so. If in answer to that Mr. Mason had said "You are quite right in doing so," it would have implied a contract. At present there is nothing to show that Mr. Mason ever gave his assent to receiving the visits of Dr. Carter in the ordinary way of a physician expecting to be paid for his attendance. Counsel for Dr. Carter referred to a case which was heard some time ago before Sir William Page Wood, sitting as Vice-Chancellor, in which he thought the law on the point was very properly stated. From the case it appeared that a physician under such circumstances would be entitled to recover, the patient having adopted his attendance, although he gave no express order for him to be called in. His Honour admitted that the authority he had cited was a book published in 1853. Mr. Sanderson said the case was referred to in the judgment in the Vice-Chancellor's Court to which he had referred, and did not appear to have been thought of any

value. His Honour said he was not aware of any modern case in which the point had arisen. Mr. Sanderson read an extract from the "Medical Directory" of 1874, which non-officially gave the substance of a recent decision to the effect that a physician was, in the absence of a distinct understanding to the contrary, to be entitled to recover in all cases for his attendance. His Honour adjourned the case for Mr. Sanderson to search out the authority on which this ruling was founded.

#### Court Hospitalities to the Profession.

WE observe that the honour of invitation to Court is not dispensed by the Lord Chamberlain on the same principle that is assumed by the gentleman who fills the analogous office at Dublin Castle. Though it was considered proper to exclude the physicians and surgeons to her Majesty, in Ireland, from the hospitality of the Duke of Abercorn, we are gratified to observe that, at head-quarters, the Queen's medical officers are judged worthy of a place beside her Majesty's servants of other professions. Sir William Jenner, Sir James Paget, Sir William Gull, Dr. Sieveking, Dr. Lowe, and Mr. Prescott Hewett were among those who had the honour of receiving invitations to the State Ball given at Buckingham Palace. Probably as it has been decided by Sir Michael Hicks Beach that Irish medical men are unfit to hold the Commission of the Peace; and as the Crown seems to think that distinguished members of our profession in Ireland are worthy of the same titular distinctions which are showered upon those of England and Scotland, we must be prepared to be told that while London physicians and surgeons are fit companions for Royalty, their Dublin brethren are not fit to breathe the same air as the Viceroy.

#### Water for Soldiers.

THE sanitary ardour of the Irish military authorities does not appear to be as great as could be desired, for we find that for the fourth time Dr. Cameron has been obliged to report an examination of the barrack water at Ennis of so unfavourable a character that it surprises us that the militia garrison of that town has escaped a serious epidemic of typhoid fever or dysentery. Dr. Cameron says:—

"The water from the pump at the militia barracks, Ennis, has been analysed by me upon four different occasions, and on each I reported that it was exceedingly bad. It contained 162·81 grains of solid matter (including 37·81 grains of organic and volatile substances) per gallon, and the ammonia amounted to nearly two grains per gallon, about a thousand times as much as is found in the Thames water at London Bridge. *I never examined so foul a water before or since.*"

It is eminently disgraceful to the authorities that the condition of the water supplied to the soldiers has been reported three times without receiving any attention from them.

#### Adulteration Law.

IN their report to Parliament, the Committee on the Adulteration Act have taken up the position which all sensible men may be expected to occupy, and which the MEDICAL PRESS AND CIRCULAR has adopted all through the controversy. The Committee simply enunciates the

principle that the buyer should be allowed to buy anything and the vendor to sell anything so long as it contain no deleterious ingredient in toxic quantity, and so long as it is not sold under a fraudulent name, but is truly and honestly described to the purchaser by the label upon it. As to the admixture of poisonous ingredients, the Committee report that these additions to articles of food are neither usual nor large in quantity, and they imply that as a rule little control will require to be exercised by the Legislature over this form of adulteration. As to the addition of innocuous matter, either for the improvement or the cheapening of any article of food, they express their opinion, and it is a very just and reasonable one, that these additions should not be condemned or punished as long as the purchaser is honestly and truly informed of the nature of the admixture. Parliament should, however, insist on this latter requirement being fulfilled, for the attempt will undoubtedly be made by manufacturers to veil the sophistication of their wares under some vague name which will afford no information whatever to the consumer.

We have already experience that they continue to designate the mixture of carbonate of soda and citric acid as "Effervescing Citrate of Magnesia," because they know that the public would not buy it if they knew that it did not contain an atom of magnesia.

As we have from the first very earnestly advocated the enactment of the law against trade frauds, and defended the operation of the Adulteration Acts against the objections of dealers who came within its penal clauses, we are gratified to learn from the report of the committee that, in their opinion, the law against adulteration had already effected much good, and would yet prove to be of great benefit to the public.

#### Frederic Bird Memorial.

A MEETING of the friends and former pupils of the late Dr. Frederic Bird was held in the Board Room of the Westminster Hospital on the 6th instant, to consider the establishment of a memorial to one who for many years held the post of obstetric physician to the Hospital and teacher of midwifery in the Medical School. It was determined that the memorial should take the form of a prize, exhibition, or scholarship in connection with the School. An influential committee was appointed, with Mr. Cowell as honorary treasurer, and Dr. Potter as honorary secretary.

#### Society of Medical Officers of Health.

THE report of this Society on the statistical returns in the annual reports of medical officers of health states that the society is unanimously of opinion that it is desirable the statistical returns of all medical officers of health in England and Wales should be based on a uniform system. It contains also a series of tables as skeleton models, which it is hoped will be adopted by all medical officers of health. The tables are no doubt susceptible of improvement; but their adoption in the present form is urged, as it is believed that any disadvantages they may possess are outweighed by the advantages resulting from a uniform system which admits of the direct comparison of the statistical returns of two or more districts. It is not intended that these

tables *only* should be used by the medical officers of health, but that at least the information given by them may be given for all districts, and in the same form.

It is thought desirable, and asked, that

1.—All statistical returns be made out to the end of the registration year, as defined in the registrar-general's reports (Dec. 31st, or thereabouts).

2.—That, merely for the sake of uniformity and convenience of compilation, the headings of columns for tables be as far as possible identical with those used in the registrar-general's tables.

3.—That the numbers of the tables adopted by the society be in all cases appended to these tables when used; and that, to avoid confusion, different numbers be assigned to any other tables which it may be thought fit to insert in an annual report.

We hope these recommendations will be generally adopted.

### The Mecca Pilgrimage of 1874.

DR. BUEZ, writing to the *Gazette Hebdomadaire*, from Djeddah, reports that the pilgrimage has been accomplished this year under the most favourable conditions as regards the public health; so that if Europe is to suffer from an attack of cholera this summer, it will not be due to a new importation from India. It cannot be doubted, he observes, that the manifestations of late met with in Europe are but recrudescences, or remains of the great epidemic of 1864-65, which left ill-extinguished foci in several localities, capable of being again brought into activity by favourable conditions, but always manifesting a decreasing vitality; so that if a renewed importation can be prevented, such foci will gradually die out.

### Wine and Whisky for Irish Paupers.

DR. CAMERON, county analyst for Sligo, reports to the Grand Jury that specimens of milk examined for the Dromore West and Sligo Unions were found to have been adulterated with 12 per cent. of water. For the same union he analysed a specimen of wine, which he found to be supurious, and unfit for use, and a specimen of whisky of inferior quality, scandalously diluted with water, and containing only 38 per cent. of alcohol or spirit.

### Flogging Schoolmasters.

A WEEK ago we directed attention to a melancholy case of flogging, and where the schoolmaster, mistaking disease of the brain for stupidity, forthwith proceeded to cure it by administering the rod, and only discovering his mistake when the boy lay dead before a coroner's jury. It would be well if schoolmasters would bring a little reason to bear upon the dull or stupid ones among their pupils, as by a timely appeal to the doctor, or a judiciously administered dose of medicine, he might spare himself some trouble and the remorse of being accessory to the death of a stupid one. At all events, the public would be spared the pain of reading such scenes as that reported in the daily journals as occurring between a Mr. Lucas, a village schoolmaster at Minney, and a Mrs. Nicholson. It appears that the schoolmaster flogged the son of the latter, whereupon the enraged

mother took the law into her own hands, and was ultimately convicted of an assault. On Friday last, however, she met and attacked the schoolmaster, and forthwith proceeded to pull his whiskers, whereupon, and finding he could not so easily shake off his assailant, he beat her on the head with a heavy whip so brutally that the poor woman has remained insensible ever since, and will, it is expected, not recover. Poor Mr. Lucas has since been apprehended on a charge of manslaughter.

### The Forthcoming Meeting of the British Association for the Advancement of Science.

THE Local Executive Committee have issued a circular reminding the members that the next meeting of the Association will be held in Belfast, commencing on Wednesday the 19th of August, under the presidency of Professor Tyndall.

The town and neighbourhood of Belfast present many objects of general and special interest. Those who wish to see the progress of certain branches of modern industry will be gratified by visiting the various establishments in which the manufactures derived from flax in every branch are conducted upon the largest scale. The large machine works and iron ship-building yards of the town will also repay a visit.

The mineral resources of the county of Antrim, in which Belfast is situated, have recently received a new and unexpected development, and the utilisation of its large beds of peat is a problem which it is now attempted to solve.

The whole province of Ulster is full of objects of the highest interest to the admirer of natural scenery, to the geologist, the naturalist, and the antiquarian; and many of its most interesting localities, such as the Antrim coast, the Giant's Causeway, the Mourne Mountains, Lough Neagh, the Round Towers of Antrim and Drumbo, are within an easy distance of Belfast.

WE regret to announce the decease of Dr. Wilson, of Devonport, from blood-poisoning through a wound in performing an operation at the Royal Albert Hospital.

It is announced that competitive examinations of candidates for admission into the Medical Services of the Army and Navy will take place at the University of London on Monday, 10th August, 1874, at 10 o'clock.

AT a late meeting of the Executive Committee of the London Hospital Saturday Fund, Lord Brabazon mentioned that several active gentlemen were undertaking to devote themselves to promoting the success of the movement. It was also announced that money in aid of the Working Men's Collection for the 17th October next was being subscribed in various firms.

THE annual general meeting of the Medico-Psychological Association will be held at the Royal College of Physicians of London, on August 6th, under the presidency of Thomas L. Rogers, M.D.

THE Council of the Pharmaceutical Society of Great Britain will give a *conversazione* to the members of the British Pharmaceutical Conference, at their house, on Wednesday, the 5th of August, at eight p.m.

MR. SCLATER-BOOTH stated in the House of Commons the other night, that when the Sanitary Laws Amendment Bill became law, a circular would be issued to all local authorities explaining its provisions.

DR. LETHBRIDGE was re-elected President of the Association of Medical Officers of Health at their annual meeting, held on the 8th inst. Dr. Stevenson having retired from the joint secretaryship, Dr. Corfield was elected to the vacant office.

MR. JOSEPH PRESTWICH, F.R.S., has been appointed to the Chair of Geology at Oxford, as the successor of the late Professor Phillips. The new Professor received the Geological Society's Wollaston Medal in 1849, and was elected President of the Society in 1870.

THE Metropolis Slaughter Houses Bill is now in committee of the House of Lords. Various amendments and suggestions have been proposed by the Association of Medical Officers of Health, and pressed upon the Government through Sir Selwin Ibbetson.

It is proposed to establish a Chair of Biology, combined with Physiology, in connection with the Durham University Colleges of Medicine and Physical Science, Newcastle-upon-Tyne, in October next. The salary will be £450, with a portion of fees. Candidates for the office are invited to apply, with testimonials, to Theo. Wood Bunning, Secretary to the College of Physical Science, Newcastle, before the 15th of August next, from whom full particulars as to duties, &c., may be obtained.

THE *Chemist and Druggist* reminds us that a new Alkali Act has passed the House of Commons, the object of which is to increase considerably the stringency of the present laws respecting the escape of muriatic acid and other noxious gases. The House of Commons, too, has passed a Bill to amend the English Apothecaries' Act. It empowers the Apothecaries' Company to strike off from their list of licentiates the name of any person convicted of crime, or who shall, after due inquiry, be judged by the Medical General Council to have been guilty of infamous conduct in any professional respect. A clause declares that nothing in this Bill is to deprive the Apothecaries' Company of such right as they now have, or relieve them from any existing obligation, to admit women to the examinations for certificates to act as apothecaries, or to enter on the list of licentiates women who have qualified to be registered.

THE results of Hospital Sunday in London, says the *Chemist and Druggist*, have turned out better than was at first feared. Upwards of £8,000. has been already paid in—a little better than last year. Her Majesty has

declined to repeat her last year's donation of 100 guineas. Among the curiosities of the collection was the sum of 15s. collected after an earnest appeal from Mr. Jabez Inwards in aid of the Temperance Hospital, which, having been but recently established, would not have otherwise shared in the public liberality.

CONTRARY to expectation, the committee appointed to consider and report upon Mr. Errington's Pharmacy Bill, of which we have published the text, has already commenced taking evidence. We understand that Sir Dominic Corrigan, Dr. Leet, Dr. Collins, Mr. Hayes, and one or two others, have been examined. This promptitude on the part of Government shows an earnest desire to do something, although it is too much to expect that any new measure can be introduced this session. We have not heard that the Committee has summoned as witnesses any of the medical practitioners, or teachers, who in Ireland are known to be conversant with the pharmaceutical wants of the country or the educational status of the Apothecaries Hall and there appears to be a danger of the Irish Pharmacy question being dealt with on very insufficient information.

DR. MACKERN, in his letter to the Medical Council, complaining of an individual who held club appointments in Long Eaton, Nottingham, without any legal qualification whatever, stated that when he spoke to some members of these clubs as to the illegality of employing such a man, they replied that it was not his business if they were satisfied, the fact being that they were so ignorant as to be unable to recognise any difference between a qualified medical man and a quack.

MR. GATHORNE HARDY, in the House of Commons, in replying to a question of Sir E. Wilmot, in reference to filling up vacancies in the medical staff of militia regiments, has declared that all such appointments had been suspended until the regulations as to the status and pay of these medical officers had been issued. These regulations he believed would shortly be brought out. As to compensation to those officers who up to the present time could show any loss or hardship, he could only say that, as in former cases, so also in these, each one would be considered carefully upon its own merits.

## Correspondence.

### THE HARVEIAN ORATION.

TO THE PUBLISHER OF THE MEDICAL PRESS AND CIRCULAR.

20 Austin Friars, London, E.C.,  
20th July, 1874.

SIR,—We are instructed by the Editor of the *British Medical Journal* to write to you under the following circumstances:—

In the last edition of your paper appeared a letter from Dr. Charles West, containing statements which were libellous, and for the publication of which you have therefore made yourself responsible to the Editor of the *British Medical Journal*, to whom those statements referred.



In any event it would have been proper for you to have endeavoured to ascertain whether there was any foundation for the charges made by Dr. West before you published his letter.

But in the *British Medical Journal* published on the 11th inst. (four days before the publication of your paper) a complete denial was given to Dr. West's assertions by the Editor of the former paper. That such a denial had been given we are advised that you must have known, or had ample means of knowing, before you published the letter complained of.

You had therefore the opportunity either of abstaining altogether from publishing the letter, or of simultaneously publishing with it the contradiction which had been given to the statements in it by the Editor of the *British Medical Journal*.

We have therefore now to call upon you to express your unqualified regret in the next edition of your paper for the course which you have taken, accompanying it by the publication of the paragraph from the *British Medical Journal* of the 11th inst. to which we have referred; or we must hold you responsible for the course you have taken.

We are, Sir, your obedient servants,

UPTON JOHNSON & CO.

[REPLY FROM THE PUBLISHER.]

I, ALBERT ALFRED TINDALL, Publisher, to whom the foregoing letter is addressed, beg to say that Dr. West's letter being addressed to the Editor, did not come under my department, that I rarely see the *British Medical Journal*, and did not read the contradiction referred to. I cannot therefore express regret for that about which I had no previous knowledge. Further, that as the foregoing was not received by me until Monday afternoon, as we were going to press, and after the Editors had finished their work for the present number, I had neither time nor opportunity of communicating with them. I therefore append this reply without advice or consultation with any person, and hope the Editor of the *British Medical Journal* and his solicitors will be satisfied therewith.

#### THE COMING EXAMINATION FOR THE ARMY MEDICAL SERVICE.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—Now that announcements are appearing in the various journals regarding examinations to be held early next month for the above services, I think it the duty of all graduates of our Colleges who are already holding commissions in the Army and Naval Medical Services, to do all in their power to warn off intending candidates among their qualified brethren from presenting themselves as candidates for either the Army or Naval Services.

No one can question the advantages to be gained by competition for the Indian Medical Service, for success in admission to this insures rapid and certain promotion, a good position, and an independence hereafter. Not so the British or Naval Medical Service, the members of both of which are now labouring under sad and serious disadvantages, which stand no chance of being remedied while candidates offer themselves for vacancies. To mention all these disadvantages and grievances would take up more space than your journal could allot me; but let me beg of intending candidates to devote an hour towards the perusal of some letters regarding the Medical Service of the Army (British Service) and Navy, which have been published in the last few issues of the *Broad Arrow* and *British Medical Journal*, which will convince them that if success attends their candidature they will come in for little else than grievous disappointment.

Should this letter be deemed worthy of publication I shall feel I have done my duty to those who may (which I may say are sure to) hereafter regret having taken a step they now contemplate doing.

I am yours,

L. R. C. S.

#### THE REPORTS OF VISITORS ON THE IRISH COLLEGE OF SURGEONS.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—The public condemnation of the Royal College of Surgeons in Ireland, both by the visitors of the General Medical Council and by the resolution of censure adopted by the Council itself, will inspire every Fellow and Licentiate of that College with a sense of profound humiliation; nor can any Irishman fail to experience a deep sense of regret that the much-vaunted Irish School of Surgery has, under the auspices of our only surgical corporation, fallen so low as to be compared discreditably with the Glasgow Faculty by a man of so eminent a character as Sir William Gull.

Until the verdict pronounced by the Medical Council is reversed, I, as one of the Fellows, will for the first time feel shame in acknowledging that I hold my highest surgical dignity from a College respecting whose examinations it could be said by any member of the profession that they were "from beginning to end as bad as could be," and that "there never before had been anything brought to the attention of a council of medical men which so painfully showed the utter paltriness of the examination." I earnestly wish that the Fellows and Licentiates of the College could regard such statements as these as the emanations of spite, professional jealousy, or political antagonism; but, unhappily, I find on reference to the medical periodicals that such opinions were approved by a majority of 13 to 3 of the members of the General Medical Council, and are endorsed by the unanimous voice of the medical press of the three kingdoms. I am compelled to accept them as unpalatable truths, and I therefore ask in the name of the Fellows of the College, to whose cause you have from time to time devoted so much attention, Who is answerable to the Fellows of the College for such a state of things?

I hope you, Sir, who have hitherto evinced no hesitation in indicating the existence and cause of other abuses in the College, will not now flinch from answering this question; and should you see fit to do so, I hope that some courageous and independent men will be found amongst the Fellows to undertake the redemption of their College from a dishonour which attaches to every one of us. I enclose my card,

And am, Sir, yours, &c.,

AN INDIGNANT F.R.C.S.I.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

DEAR SIR,—Lest you may not be editorially aware of the history of the examination agitation in the Irish College of Surgeons within the last three years, or may not think it incumbent upon you to make public the whole truth upon your own editorial responsibility, I send you a recapitulation of the circumstances which have led to the College, as we say in the army, "losing its good service stripes;" and I claim, from your well-known independence of speech, a full and fair publication of the facts, which I think it is right that the Fellows and Licentiates should be acquainted with.

It is many years since the more advanced educationalists in the Council began to express their dissatisfaction with the system of examination, and to demand its extension and improvement; but their mouths were at all times stopped by the statement put forward by the obstructive party (then a large majority), that if the examination was enlarged the students would at once fly to Scotland for cheap and easy licences, and leave the College to dignified bankruptcy. It appears that this theory is not even yet dead, for I find it to-day in the mouth of the College representative at the Medical Council. Despite this threat the reforming party persisted in their efforts, and at length in 1870 obtained a

committee of council to draw up a scheme for a new system.

That plan was completed by the committee after much deliberation, submitted to the Council, adopted and ordered to be published; and was, in fact, published with the knowledge and consent of the Council. The moment, however, that the proposition for a reform assumed the position of a *fait accompli*, the indifference of the "grinders" and the examiners who, without exception, had all along discouraged any change of the now condemned system, ripened into violent hostility, and every influence was exercised *per fas aut nefas*, to defeat the effort for a reform. Whispers were industriously circulated by some of the hostile section of the Council, that the scheme would never be carried into effect; it was sneered at by a majority of the examiners as unnecessary and impracticable, and it was resisted by the "grinders," even to the extent of absolutely refusing to prepare the students for it, and openly threatening that they would send every man within their influence to Scotland, if the Council persisted in its progressive movement. Meanwhile, in the Council itself, every technical device was made use of by the obstructive party to throw difficulties in the way—to prevent the intentions of Council being made known to the students. Every legal quiddit in the charter was furbished up to show that the scheme was illegal, and every chance of postponement or delay availed of; while, out of doors, the student was threatened that if he presented himself under the new system he would have to meet a hostile court of examiners, who would stick him without mercy. Eventually the "grinders" were driven to get up petitions amongst the students against the new system, which were hawked round and signed by all the raw hands and cronies in Dublin, and then laid before the Council as representing the feelings of the second years' men.

In the face of these efforts the reformed system was persistently urged upon the Council by its advocates, and notably by one active and courageous member, whom you, Sir, wot of; and, at length, the first examination under the new arrangements was held upon thirteen candidates, who had resisted the threats and blandishments which they had had to encounter. Alas! Sir, owing, as was afterwards shown, to an unhappy muddle of the marking on the written examination, and—if it be true, what was at the time loudly said, to the hostility of the Court to the new system—nine out of the thirteen men were plucked, although almost all of them had shown by their *viva voce* examination, a standard of knowledge high above that required under the old system. Under the discouragement of this blow the supporters of reform turned their backs and fled, and the grinders—examiners and make-money-at-any-price councillors—sealed their victory by driving out from the Council the member who had most energetically connected himself with the movement.

Here your readers, and Sir William Gull, have the full and true account of the rise and fall of the only honest effort at reform of examination ever made in the College. It will, I hope, do good if you publish it, to show the profession that the Irish College of Surgeons is not utterly vacant of energetic and independent men of progress, and to remind the Dublin grinders, the examiners, and the dear and easy diploma party in the Council that they, and they alone, are chargeable with bringing the College and its diplomas to disgrace.

Yours, &c.,

A STUDENT OF 1870 WHO KNOWS ALL ABOUT IT.

[We cannot but admit that the foregoing narrative is a "round unvarnished tale," accurate in all its facts, though a little unjust to the examiners and the members of Council. The head and front of the offending of the College is that for fifteen years, while other bodies have been moving a-head in their examinations, it has stuck fast in the slough of ultra-Conservatism, and is to-day

practising a system of examination which might do well enough in the old days of apprenticeship and monopoly, but is utterly behind the age, and short of the requirements of surgical education. The Council are to blame because they have allowed a hankering after the fleshpots of Scotland to prevent them insisting on fair, open, and sufficient examination. The examiners after, in some instances, a quarter of a century's rusting in the old groove, could not be expected to move on without a smart conciliate *vis a tergo*.

The justification of the members of Council who devoted themselves to reform, and especially of the individual member to whom our correspondent refers, who was punished for his zeal by the ostracism of the anti-improvement party, has been swift and complete; and we are gratified to believe that the College will be all the sounder for the severe but necessary ordeal of flagellation to which it has been subjected.—Ed. M. P. & C.]

#### THE REPORT OF THE VISITORS ON THE EXAMINATION OF THE ROYAL COLLEGE OF SURGEONS OF IRELAND.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

THE not very complimentary remarks elicited at the Medical Council as to the mode of conducting the examinations at the College of Surgeons of Ireland, has, I trust, been of a sufficiently stimulating character as to induce the adoption of some measures of reform and advance on the method of testing. I am quite aware it has often been felt that the *test* was a most uncertain one; good men were rejected while bad were passed, and even those who passed were dissatisfied with the *modus operandi* of their examination; some "pshawed" it as a kind of scrimmage where their real value was unappreciated; others grumbled at being kept the whole time at one or two examiner's little tit-bits; while others admitted they did not know anything well, but had fortunately got up some strong "tips" on the subject asked, and managed to dodge through the time; in fact, the shortness of the time was the chief objection to the well-informed or more modest man, while it was the delight of the ignoramus or of the more astute. The *Lancet* remarks as to another cause of imperfection which, as it states, "did ever any one hear of such an absurdity" as that the examiners must be "gentlemen who are not professional teachers in any school of medicine." This regulation of the College, I believe, is based not as supposed on jealousy, but is to preserve the examination from any appearance of unfair play. I must admit the difficulty as owing to this rule, as the *Lancet* remarks, with but some rare exceptions; the gentlemen selected must be those "who from age or failing powers, or from youth and inexperience are *unconnected with tuition*," and some have continued examiners for nearly a quarter of a century, I think. On the other hand, of what value would be an examination which is to qualify a man for public practice conducted by the lecturers and teachers who taught that same candidate, who received his fees, and would receive possibly more fees if he were rejected, or would receive possibly those of his friends or relatives who may be watching the result of his "pass or pluck" to decide whether they will attend the same teacher's classes. I am quite aware such a method is adopted; but is it a proper system? I am aware myself of a candidate educated elsewhere who was rejected on a certain subject by such an examiner who, when he took out his course and paid his fee to the same examiner, passed that subject with *éclat*, although he himself felt he

knew less about it than before. Without attributing any dishonesty whatever, we know it is probable that a lecturer or teacher will have peculiar views, hobbies, and crotchets which may be practically worthless or singular, and which his pupil will be able to answer, though he might not be a tithe as well informed as a candidate taught elsewhere. The original idea was based, I think, on the proper stratum of knowledge of human nature; but strangely teachers in hospitals were omitted. Now it is amongst hospital surgeons that it appears to me the greatest temptations arise; the pupil is thrown vastly more in contact with the hospital surgeons than even with his regular lecturer; the student has the opportunity of admiring his practice and carrying out his treatment; if this surgeon is of the sanguinary type he has the opportunity of making every thing sweet for his presenting himself for examination by interesting himself amongst his country or town friends in procuring a surgical victim for the special operation, or an illustration of the theoretical ideas of his future examiner. If the surgeon be rather of the *laissez-aller* type, he will take care to ease him as far as possible of hospital trouble, but to sound his praises amongst his friends for consultation or "call me in."

As "a city mouse" I have heard dark hints of such practices, whether they acted beneficially or otherwise, but my now rustic mind can contemplate the difficulties involved. Why not cut the knot by the appointment and suitable payment of examiners, beyond such possibilities,—neither teachers, hospital surgeons, or above all things paid teachers and examiners who qualify for the public service both at the same time? or let a rotatory system be established, with a representative from every school, and thus allow a uniform system and ample testing, before either—as I think have been pretty amply demonstrated by the report of the visitors—condemning a really good man to the blot of rejection or passing an inadequate man from the imperfections alluded to.

Yours, &c., SCRUTATOR.

P.S.—It is to be remembered that the relations of teachers and pupils are vastly different in Dublin and London; the extent of the two cities is so incomparable.

### THE FOLKESTONE WATER.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—An English jury having effectually vindicated Dr. Bowles from the libellous and odious charges brought against him by the Secretary of the Folkestone Water Works Company, and the Lord Chief Baron having decided that where the public health is concerned, a medical man may call "a spade a spade," you will perhaps permit me to remark in corroboration of what was said of the condition of the open reservoir of water at this watering place, that two years ago while staying there with a portion of my family, we suffered from repeated attacks of diarrhoea, and, as you may suppose, derived no benefit whatever from our visit—indeed, were rather glad to get away. The weather was then very warm, and the temperature of our bedrooms compelled us to drink a good deal of water during the night, and our children being water drinkers, we partook of a large quantity of the same beverage during the day. However, feeling somewhat better, my son and myself strolled off one morning across the fields, and ultimately came upon a large open circular pond of water, which we soon learnt was the reservoir of the Folkestone Water Works. On attentively examining the water and the large quantity of water weeds, I noticed immense numbers of entomostraca and other infusorial animals feeding upon them, and I at once saw a clue to the attacks of diarrhoea. The water, in short, bore out entirely the character given of it by Dr. Bowles and others, and there cannot be a doubt of its being injuriously contaminated by vegetable and animal growths. Dr. Frankland was perfectly right in saying "that there were not wanting visible causes sufficient to account for the deterioration of the water during its sojourn in the storage reservoirs;" and doubtless, had the Secretary of the Company

possessed a little less pugnacity and a little more common sense, or understood the use of the microscope, he might have recognised in Dr. Bowles, well grounded complaint a desire to protect the health of his fellow townspeople, and prevent visitors precipitately leaving with a bad impression of the salubrity of Folkestone.

I remain, Sir, yours faithfully,

JABEZ HOGG.

1 Bedford Square, London, W.C.,  
June 10th, 1874.

### COMPULSORY SANITARY DUTY.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—In your issue of Wednesday last the 10th Clause of the Public Health Bill begins thus:—"Every medical officer of a dispensary shall be a sanitary officer," &c.

This looks like compulsion, and if so, would you be pleased to point out the clause or clauses containing the penalty or punishment for refusing to accept the office.

It is not likely that gentlemen at or over sixty years of age will be induced to poke their noses into privies, cess-pools, sewers, drains, and all the rest of it, for a few paltry pounds additional to their salaries. The personal and professional degradation of such an office cannot surely be counterbalanced by money, and I intend to employ any or all constitutional means available that will enable me to resist and refuse it, if the present bill becomes law.

A very proper clause in the Act would be to compel dispensary doctors at or over sixty years of age to retire on their full dispensary annual salaries.

A DISPENSARY DOCTOR.

[No penalty is imposed by the Bill. The compulsion upon dispensary medical officers to accept the appointment of health officer was the subject of anxious consideration at the annual meeting of the Irish Medical Association. It was however, considered, that as there is an inspector provided to carry out the most unpleasant part of the sanitary duty, the compulsory acceptance of the office would not be unjust or seriously inconvenient to any one.—ED. M. P. AND C.]

### MEDICAL MEN AND THE COMMISSION OF THE PEACE.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—In your number of July 1st you make reference to a reply given in the House of Commons by Sir M. H. Beach, to a question put to him by Mr. Moore, member for Clonmel, in reference to the nomination to the magistracy of a medical man by Lord Lisamore. The Chief Secretary stated that the Lords Commissioners refused to appoint any medical man in practice to the commission of the peace. A similar case has occurred in County Down. On the 2nd of March last a memorial, numerously signed by nearly all the most respectable inhabitants of the Donaghadee Petty Sessions' District, was presented to Sir Thomas M'Clure, Bart., Vice-Lieutenant of the county, requesting him to nominate and recommend Dr. Stuart, Medical Officer of Donaghadee Dispensary, to the Lords Commissioners for appointment to the magistracy for the district. On the 5th June the following reply was received from Sir Thomas M'Clure:—

"I know the gentleman you refer to is highly respectable and trustworthy, but I may tell you that the Lords Commissioners would not sanction the appointment of any practising doctor, even if only consulting at his own house.

"Thomas M'Clure."

You may make any use you please of this letter.

SAMUEL STUART, M.D.

## Cleanings.

### Phosphoric Acid in the Urine of the Insane.

By DR. E. MENDEL.

AFTER some introductory remarks (*Archiv. f. Psychiatr. u. Nervenkr.* iii. 3., p. 636) concerning especially the quantitative relation between phosphoric acid, the quantity of urine and the solid constituents, and after narration of the cases mentioned in literature, the author proceeds to show that the opposite view, that a greater excretion of phosphorus follows mental labour, is not confirmed by his quantitative examinations of sane and insane patients, since more phosphates are excreted by night than by day during mental activity.

On the other hand he discovered the exceedingly interesting fact that under the same conditions the insane patients excreted *absolutely* less phosphorus and also *relatively* less in comparison with the solid constituents.

As to the urine of so-called progressive paralysis, it is found that in that period of the course of the disease characterised by rapid reduction of weight and sharp appetite, without increase of temperature, the urine is voided in very high specific gravity. With this general increase of the solid constituents, there is also an increase in the phosphates which may even exceed the rest of the solids; in such cases there is simultaneous increase in the sulphates.

In opposition, then, to the declaration of Lombroso, the investigations of the author show that the urine of the insane contains both absolutely and relatively less phosphorus.

But the author did observe an increase in the phosphates, both absolute and relative in some apoplectic and epileptic cases. Five cases of this kind were noted, all either in the course of general progressive paralysis or hemiplegia. After deep sleep of several hours, caused by chloral or the bromide of potash, there followed likewise a marked increase in the phosphatic excretion. But whether these differences in the excretion of phosphorus stand in any direct relation to the brain is still undecided.

The experiments made by the author on animals, finally, of which those on two rabbits and one dog are detailed, by introducing needles into the brain, or by injecting a few drops of caustic soda, prove that injuries of the brain in these animals are followed also by increase in the excretion of phosphorus.—*Schmidt's Jahrbücher*, February 23rd, 1874.

### A Case of Cystic Goitre Cured by the Drainage Tube.

By W. L. APPELY, M.D., of Cochection, New York.

Dr. L. W., æt. 65, presented himself at a meeting of the Tri-States Medical Association, March 5th 1873, with a large tumour in front of the neck, of twenty years' standing, and had not produced much inconvenience until lately it began to interfere with respiration and deglutition. He had always supposed it to be an ordinary solid enlargement of the thyroid gland. He had treated it as such; taken iodine and iodide of potassium in large doses, and for a long time, and applied iodine locally without benefit.

After an examination, the physicians present were unanimous in the opinion that the tumour was cystic. We proposed introducing the trocar and canula, but the patient declined. He allowed us to introduce the exploring needle, and we convinced him that the tumour contained a fluid. We introduced the trocar and evacuated the contents of the sac of the tumour, a brownish fluid (20 fluid ounces), and weighing 22½ ounces. He declined any further treatment at present.

May 10th he came to see me, the tumour nearly as large as at first. I introduced the trocar and emptied the sac of its contents, and injected tinct. of iodine. His general health appeared to be failing. He came to me again on the 3rd of August, much prostrated and emaciated, loss of appetite, &c.; could walk but a short distance. His friends began to apprehend a fatal result. The opening did not close entirely, and the discharge had become purulent and profuse.

I now introduced a rubber drainage tube and advised him to inject warm water twice a day. I saw him again Sept. 10th, very much improved in his general health; but a slight discharge from the tumour, which was then about the size of a hen's egg, and appeared to be the sac contracted. Saw him again Dec. 15th. He claimed to be in as good health as he ever was, and weighed as much; can walk long distances. He has left off using the tube. The opening is not entirely closed; there is a very slight discharge. He pronounces himself cured. Many of his acquaintances fail to recognise him on account of the change in the appearance of his neck.

## Medical News.

Royal College of Surgeons of England.—The following Report from the Court of Examiners of the number of Candidates who have presented themselves for the Primary and Pass Examinations for the Diploma of Member of the College during the Collegiate year 1873-74, showing the number who have passed and have been rejected from each Medical School during that period, has been issued:—

### PRIMARY EXAMINATIONS—1873-4.

Medical School.	Totals.	Number passed.	Number rejected.	Percentage of rejections.
University College	91	65	26	29.6
Guy's	90	62	28	31.1
St. Bartholomew's	63	47	16	25.4
St. Thomas's	51	38.50	12.50	24.5
St. George's	49.50	36	13.50	27.3
King's College	47	33	14	29.7
London	34	22	12	35.3
Middlesex	19	8.50	10.50	55.3
St. Mary's	17.50	11.50	6	34.3
Charing-cross	13.50	8	5.50	40.7
Westminster	12.50	6	6.50	52
Manchester	3.50	13	19.50	80
Leeds	22	14	8	36.4
Liverpool	20	12.50	7.50	37.50
Birmingham	16.50	8	8.50	51.51
Bristol	8	6	2	25
Newcastle	15	7.50	7.50	50
Cambridge	4	2	2	50
Sheffield	4	1	3	75
Dublin	14.50	9	5.50	38.2
Belfast	1	1	0	0
Galway	.50	0	0.50	100
Edinburgh	30.50	17	13.50	60.6
Glasgow	10	5	5	50
Aberdeen	5.50	3	2.50	45.45
Calcutta	.30	0	.30	100
Montreal	3.50	1.50	2	57.1
Toronto	6	3	3	50
New York	2.50	1.50	1	40
Boston	.50	.50	0	0
Totals	633	441	192	30.4

### PASS EXAMINATIONS—1873-74.

Medical Schools.	Totals.	Number passed.	Number rejected.	Percentage of rejections.
Guy's	83	60.50	22.50	27.23
St. Bartholomew's	60.50	44.50	16	26.4
University College	51	37	14	27.4
King's College	35.50	24	11.50	32.3
St. Thomas's	32.50	27.50	5	15.4
St. George's	18	15	3	16.6
London	15.50	11	4.50	29.03
Charing-cross	12	7	5	41.67
St. Mary's	11.83	10	1.83	15.4
Middlesex	7	6	1	14.3
Westminster	4.50	2.50	2	44.4
Manchester	24.50	16.50	8	32.1
Newcastle	12.50	9	3.50	28
Leeds	12	8.50	3.50	29.16
Birmingham	11.50	8	3.50	30.4
Liverpool	6.50	4.50	2	30.7
Bristol	6.50	6	.50	7.7
Sheffield	2.83	2.50	.33	11.7
Cambridge	2	2	0	0
Hull	.50	0	.50	100
Dublin	10.3	7	3.3	32.3
Belfast	1	1	0	0
Aberdeen	5.50	4	1.50	27.27
Edinburgh	13.50	10.50	3	22.2
Glasgow	3	2.50	.50	16.6
Bombay	.50	.50	0	0
Montreal	.50	.50	0	0
New York	1	1	0	0
Paris	.50	.50	0	0
Totals	466	332	134	27.2

21st May, 1874.

T. B. CURLING, President.

The following were admitted members of the College on the 14th inst:—W. Gibson Bott, L.R.C.P., Kennington-park-road; C. Edward Hobbes, L.R.C.P., Bidford, Worcester-shire. The following passed the primary examination in Anatomy and Physiology on Tuesday and Wednesday last:—T. W. Brown and E. Brumwell, London Hospital; A. C. Munro, W. T. Evans, W. J. Quatrough, and A. H. Denton, Edinburgh; C. R. Naylor, Calcutta; E. G. Wool-lerton, Glasgow; W. G. H. Blake Marsh, Bristol; C. M. Anderson, J. T. Gadsby, E. G. Francis, and C. H. Cuming, University College; W. S. Burrows and J. H. Lloyd, St. George's Hospital; R. A. Newton, C. Lees, H. P. Welchman, H. Green, A. O. Holbecke, W. Pratt, J. W. O. Mogg, and R. Davies, Birmingham; W. T. Angrove, R. Bruce, and C. J. Hancock, St. Bartholomew's Hospital; F. P. Flood, Leeds; W. Thomas, W. Pilkington, G. G. Hodgson, and W. Townson, Liverpool; E. L. Freer and C. W. L. Howard, St. Mary's Hospital; R. F. Brindle and R. B.

Sellers, Manchester; G. L. Latour, Cork; J. T. Gardner and T. A. Richardson, Guy's Hospital; G. S. Badcock, J. A. Phillips, E. Sutton, and J. Potts, Charing-cross Hospital; A. Young, King's College; N. Williams, Cambridge; J. Abraham, Dublin; J. Foster, St. Thomas's Hospital.

**Queen's University in Ireland.**—The following have passed the second University examination in Medicine:—John P. Balbirnie, Robt. Beattie, David Bradley, James F. Brodie, George H. Bull, William F. Carmody, William Coates, Jephson Connell, John Coonilliac, Patrick Dempsey, Robt. Esler, Francis Meagher Geoghegan, George T. Goggin, Charles Good, James J. Gorham, H. C. Kirkpatrick, George Latour, William M'Afee, James Macnamara, Edward G. Marks, Chas. F. Marks, S. D. Martin, Robt. Moore, James Moorehead, Edmund Murphy, Channing Neill, G. F. Nicholson, Michael R. O'Connor, Wm. S. Patterson, Wm. D. Power, Wm. A. Quayle, Charles K. Tanner, Wm. H. Thornhill, John Wade, James O'B. Williams, Wm. O. Williamson, Daniel Wilson.

**Society for Relief of Widows and Orphans of Medical Men.**—The quarterly court of directors of this society was held in the rooms of the Royal Medical and Chirurgical Society July 8th, Sir George Burrows, F.R.S., president, in the chair. There were two widows added to the list of recipients of grants, thus raising the number to sixty. There was, however, a diminution in the number of children, of whom three receive assistance from the Copeland Fund. The sum divided among the applicants for the present half year was £1,279 10s. The expenses of the quarter were £107 2s., including an honorarium of 30 guineas to the secretary, in recognition of his zealous and valuable services. Six new members were elected, one under the new bye-law, by which a member may be proposed and elected at the same court.

## NOTICES TO CORRESPONDENTS.

**DR. FINCH.**—In an early number.

**FRIENDLY RIVALRY.**—The State of Illinois, America, boasts two medical colleges, and in order to place them upon a footing of equality, a full meeting of the Esculapian Society passed resolutions on the 24th ult., to the effect that jealousy and rivalry are as reprehensible in medical schools as in individuals, and that every member would discountenance and put down any attempt on the part of one school to supersede another in any other way than by genuine merit. The meeting further expressed an opinion that the two schools were equal in point of excellence.

**THE CLINIC AND THE MEDICAL PRESS.**—We are glad to find our contemporary accepts our denial that the profession in this country hates everything American. We have on more than one occasion congratulated the *Clinic* upon its smartness, and were therefore surprised and annoyed that such a charge should appear in a journal about which we had formed so favourable an opinion. However, we are glad to shake again the offered hand which does not hold the pen in vain.

We have received from Dr. Edwards Crisp a copy of a letter addressed by him to the General Medical Council in reference to the award of the Carmichael Prizes of the Council of the College of Surgeons in Ireland. Having already fully discussed the matters complained of by Dr. Crisp we cannot reopen the consideration of circumstances attending an adjudication of these prizes three years ago. Dr. Edwards Crisp, to his previous complaints (with which it is not his fault if the profession is not familiar) adds, as further grievances—Firstly, that the Council of the College did not on the last distribution of the prizes appoint the judges until some weeks after the competing essays had been sent in; secondly, that the issue of the essays in book form has been too long delayed.

On the first of these points we have to say that we are not aware that the Council of the College is bound by Mr. Carmichael's will to any particular date for the appointment of judges, and it does not appear to us to be of great importance whether they are appointed before or after the 1st of May. On the second point we agree with Dr. Crisp that an unreasonable delay has occurred, and that the essays ought to be at once given to the public.

### VACANCIES.

East London Hospital for Children. Assistant Visiting Physician. Election August 4th. Particulars may be obtained of the Secretary. (See Advt.)

Cancer Hospital, Brompton. House Surgeon and Registrar. Honorarium 75 guineas, with board and residence. Applicants must address the Chairman of the Weekly Board. (See Advt.)

Owen's College, Manchester. Professorship of Anatomy. Emoluments from stipend and fees, guaranteed not to be less than £500 per annum. Full particulars on application to Dr. Greenwood.

Burnley Union. Medical Officer of Health. Inclusive salary, £500 per annum. Address the Clerk to the Sanitary Authority, Burnley.

Denbighshire Infirmary. House Surgeon and Secretary. Must understand Welsh. Address the Chairman of Committee. Salary to commence at £255.

University of Durham. Professorship in Biology. Salary, £450, with a portion of fees. Candidates must apply to the Secretary of the College of Physical Sciences, Newcastle-on-Tyne.

West Sussex Infirmary, Chichester. Assistant House Surgeon. Salary, £20, with board and lodging. Address the Secretary.

Nottingham General Hospital. Assistant House Surgeon. Salary, £20, with board and residence. Address the Secretary.

Manchester. Senior Medical Officer to the Workhouse. Salary, £150 per annum, with residence. Applications endorsed "Medical Appointment," must be addressed to the Clerk of the Guardians, New Bridge Street.

Rhymney Iron Works. Out-door Assistant to dispense and visit. Salary, £100. Address Mr. Redwood, The Lawn, Rhymney, Monmouth.

Royal London Ophthalmic Hospital. Assistant House Surgeon. Salary, £50, with board and residence. Also a Curator to the Museum. Salary, £100. Applications to be addressed to the Secretary.

Royal London Orthopaedic Hospital. Surgeon on the Staff, Honorary. Applications to the Secretary, 315 Oxford Street, W.

Metropolitan Free Hospital. Assistant Physician, Honorary.

Stafford General Infirmary. House Surgeon and Secretary. Salary, £100, with board and lodging. Applicants must address the Secretary.

### APPOINTMENTS.

CAMERON, A., L.R.C.P.Ed., Medical Officer for the Hatfield District of the Thorne Union, Yorkshire.

COCHRANE, G., M.R.C.S.E., Public Vaccinator for the Wickham-Market District of the Plomesgate Union.

CORIN, W. J., M.R.C.S.E., Medical Officer for the No. 6 District of the Liskeard Union.

EASTON, G. F., M.D., L.R.C.S.Ed., Medical Officer of Health for the Alnwick Rural Sanitary District.

FURNIVALL, C. H., M.R.C.S.E., Medical Officer for No. 6 District of the Tendring Union, Essex.

GARLAND, T. H., L.R.C.P.Ed., L.R.C.S.Ed., Medical Officer for the Cambridge District of the Great Northern and Great Eastern Railways.

HART, E. J., M.R.C.S.E., Medical Officer for the Central District of the Parish of Brighton.

HEMSTED, E., M.D., Medical Officer for the Earls Barton District of the Wellingborough Union.

HUGHES, W. H., M.R.C.S.E., Medical Officer of Health for the Urban Sanitary District of Ashton-under-Lyne.

IRVINE, J. P., M.D., an Assistant Physician to Charing Cross Hospital.

KING, D., M.R.C.S.E., Medical Officer for the Abbotsham District of the Bideford Union.

LAIDLAW, W. G., M.D., Medical Officer to the Workhouse Infirmary and Schools, and for No. 2 District of the Birkenhead Union.

NEEDHAM, W., M.R.C.S.E., Assistant Resident Medical Officer to the Union Infirmary, New Bridge Street, Manchester.

NORTON, H., L.R.C.P.Ed., M.R.C.S.E., Medical Officer and Public Vaccinator for the Nunney or No. 4 District of the Frome Union.

SMITH, C. B., L.R.C.P.Ed., L.R.C.S.I., Medical Officer, &c., for the Ferns Dispensary District of the Eniscorthy Union.

SPENCE, J. B., M.D., Assistant Medical Officer to the Asylum for Idiots, Earlswood.

WILLIAMS, Mr. P., House Surgeon to the Royal Infirmary and Dispensary, Windsor.

WILLIAMS, M., L.R.C.P.Ed., M.R.C.S.E., Medical Officer and Public Vaccinator for the Cardiff West District of the Cardiff Union.

WILSON, J., M.D., F.R.C.S.Ed., Consulting Physician and Surgeon to the Northern Infirmary, Inverness.

## Marriages.

EVANS—YOUNG.—On the 14th inst., at Hertford, Ernest Richard, youngest son of the late R. D. I. Evans, M.D., Hertford, to Mary Fanny, eldest daughter of B. Young, Esq., of Hertford.

WALTON—FARRAR.—On the 15th inst., at Nun Monkton, the Rev. T. I. Walton, M.A., Rector of Ickleford, Herts, to Barbara, eldest daughter of the late William Farrar, M.D.

## Deaths.

CRAW.—On the 1st July, at Malta, John Craw, M.D., Surgeon R.N., aged 82.

DODD.—On the 11th July, at Brighton, Elijah Dodd, M.R.C.S.E., of Studley Road, Clapham, aged 68.

PALMER.—On the 3rd July, Henry Palmer, M.R.C.S.E., of Great Bedwin, Wilts, aged 37.

SINCLAIR.—On the 10th July, John Hartley Sinclair, M.D., of Marine Square, Brighton, late Staff-Surgeon, Army Medical Department, aged 70.

STEEL.—On the 9th July, John Steel, L.F.P.S. Glasg., of Wheatholm, Pollokshaws, Renfrewshire.

WILSON.—On the 9th July, John Wilson, M.D., of Stoke, Devonport, aged 32.

## Advertisements.

**GENERAL COUNCIL OF MEDICAL EDUCATION**  
and REGISTRATION of the UNITED KINGDOM, 315 Oxford Street, London, W.—The office of the General Medical Council and of the Branch Council for England has been removed from 32 Soho Square, to the above address.  
July 9th, 1874. FRANCIS HAWKINS, M.D., Registrar.

**CANCER HOSPITAL, LONDON and BROMPTON.**—There is a Vacancy at this Hospital for a RESIDENT HOUSE-SURGEON and REGISTRAR. Candidates must be registered Members of the Royal College of Surgeons of England, and thoroughly conversant with the use of the microscope. The appointment is for one year and honorarium 75 guineas, with board and residence. Applications, with diploma and testimonials, to be addressed to the Chairman of the Weekly Board, 167 Piccadilly, on or before July 22nd, 1874.

**EAST LONDON HOSPITAL FOR CHILDREN,** RATCLIFF CROSS.—NOTICE is HEREBY GIVEN that a Vacancy has occurred in the office of ASSISTANT VISITING PHYSICIAN to this Institution. The Hospital contains 35 beds, with an average attendance of 100 out-patients daily.

Attendance is required two afternoons in the week. Further particulars may be obtained from the Secretary, at the Hospital.

Rule 6 provides that—"Every Physician eligible to this Hospital shall be either a Fellow or Member of the Royal College of Physicians of London, or a Fellow of the College of Physicians of Edinburgh or Ireland, or Graduate in Medicine of a British University, or of the Universities of Paris, Vienna, Berlin, or other University approved by the General Council of Medical Education, and be legally qualified to practise medicine in England." And Rule 8 is as follows:—"The Physicians and Surgeons in this Hospital shall not practise Pharmacy." Applications to be sent in to the Secretary, at the Hospital, on or before Thursday, the 30th instant. A Special General Court of Governors will be held for the purpose of electing such Officer on Tuesday, the 4th August, 1874, at the London Tavern, at 3.30 p.m.

THOMAS CHARRINGTON,  
Chairman of the Board of Management.  
ASHTON WARNER, Secretary.

Hospital, 8th July, 1874.

**DUBLIN INFIRMARY for DISEASES of the EYE and EAR, Ely Place.**

Ophthalmic and Aural Surgeon:

ARCHIBALD HAMILTON JACOB, M.D. Dub., F.R.C.S., Ex-Ophthalmic and Aural Surgeon to the City of Dublin Hospital.

Consulting Physician:

EVORY KENNEDY, M.D. (Hon. Caus.) T.C.D. and Edin., Fellow and Ex-President King and Queen's College of Physicians.

Consulting Surgeon:

GEORGE H. PORTER, F.R.C.S.I.; M.Ch. T.C.D. (Hon. Caus.), Surgeon in Ordinary to Her Majesty the Queen in Ireland; Fellow and Ex-President, R.C.S.I.; Senior Surgeon to the Meath Hospital.

Obstetric Physician:

JOHN CRONYN, M.D., F.R.C.S., Examiner in Midwifery, Roy. Col. Surgeons; Ex-Assistant Physician Rotunda Hospital.

Work, Income, and Expenditure for Twelve Months, ending June 30, 1873.

Annual number of Dispensary patients	...	...	...	729
Number of visits paid by such patients	...	...	...	5,847
Number of patients within the Infirmary	...	...	...	124
Number of operations performed	...	...	...	163
Total gross expenditure per bed per annum	...	...	...	£27 15 0
Average expenditure per intern patient	...	...	...	1 10 6

The Infirmary is wholly dependent on private benefactions, and is in debt to the Medical Officer. SUBSCRIPTIONS ARE EARNESTLY REQUESTED

**THE STEWART INSTITUTION FOR IMBECILES, AND LUNATIC ASYLUM, LUCAN.**

PATRON:—H.R.H THE PRINCE OF WALES.

This Institution was founded in 1839, and has already attained a large measure of success. It is situated in a healthy locality, and is under the superintendence of a Resident Physician, with trained teachers, who endeavour by the most improved methods to develop the powers, mental and physical, of Imbeciles.

To the pupils who can receive such instruction useful trades are taught. In that of mat making, particularly, excellent progress has been made, and an inspection of the work is invited either at the Institution or at the office.

The Institution is the only one of its kind in Ireland, and is mainly supported by voluntary contributions.

Pupils are admitted free by election, or by payment of £35 per annum. A higher rate is payable for separate accommodation.

Contributions to the fund for the erection of the proposed extensive buildings at Palmerston are earnestly solicited.

Each donation of Five Guineas gives the donor a life-vote. Annual Subscribers are entitled to one vote for each half guinea paid.

An Asylum for Lunatic Patients of the middle classes, under a well-organised administration, also forms part of the establishment.

Full particulars as to the working of both Institutions, terms, &c. can be had at the office.

40 MOLLESWORTH STREET, DUBLIN.  
W. O'NEILL, Secretary.

Established 1848.

**PROFESSIONAL AGENCY AND MEDICAL TRANSFER OFFICE.**

50 LINCOLN'S INN FIELDS, W.C.

J. BAXTER LANGLEY, LL.D., M.R.C.S., F.L.S.,

&c. (KING'S COLL.), and Author of VIA MEDICA,

Has always upon his books a large number of desirable Investments and available Appointments for negotiation.

The business of the Professional Agency is based upon the general principle, that no charge is made unless work has been done and services rendered.

No Commission charged to Purchasers.

Full information as to terms, &c., sent free on application.

Office hours, from 11 till 4; Saturdays excepted.

COMPETENT ASSISTANTS provided without expense to principals. No Gentlemen recommended whose antecedents have not been inquired into.

**PRACTICES AND PARTNERSHIPS NOW OPEN** for Negotiation (in addition to those advertised in Dr. Langley's List, which is sent post free on application).

Y 954. LONDON, W. The SUCCESSION to a WELL-ESTABLISHED PRACTICE in the neighbourhood of the best squares, can be secured to a doubly-qualified gentleman accustomed to good society. Average receipts upwards of £1,000 a year. Midwifery, £2 2s. to £10. The dispensing is done by a chemist. One horse and brougham sufficient for the work. No assistant required. House contains fourteen rooms, and is held on beneficial lease at a rent of £150 a year. Introduction, if desired, till June, 1875.

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# The Medical Press & Circular.

"SALUS POPULI SUPREMA LEX."

WEDNESDAY, JULY 29, 1874.

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## Original Communications.

### LECTURES ON BRIGHT'S DISEASE,

WITH SPECIAL REFERENCE TO

**PATHOLOGY AND TREATMENT,**

DELIVERED AT THE ROYAL INFIRMARY OF GLASGOW,

By D. CAMPBELL BLACK, M.D.,

One of the Physicians to the Hospital.

LECTURE V.

(Continued from page 531, Vol. XVII.)

PUTTING out of consideration the lardaceous degeneration of the renal arterioles, Dr. Johnson maintains that the condition to which Sir William Gull and Dr. Sutton have applied the term "arterio-capillary-fibrosis" is of artificial production, due to the effect produced on the normal *tunica adventitia* of the arterioles by immersion in glycerine and dilute acetic acid. "A sight of the preparations (of Drs. Gull and Sutton), says Dr. Johnson, convinced me at once that my surmise had been correct, and the so-called 'hyaline-fibroid' is neither more nor less than the normal *tunica adventitia*, probably hypertrophied together with the muscular coat, and certainly distended and rendered transparent by the endosmosis of the highly refracting glycerine fluid. The regular arrangement of the elongated nuclei with their long diameter in the direction of the arterial canal, and the entire absence of any abnormal appearance, afford conclusive evidence that the *tunica adventitia* has undergone no pathological change." (a) My examination of this portion of our subject compels me to affirm my unqualified adherence to the views of Dr. Johnson.

These views are substantially confirmed by the recent

(a) If the quantity of acetic acid be considerable the vessels become speedily decolorised, and the "hyaline-fibrosis" appears in a few hours.

observations of Dr. Grainger Stewart. (a) An examination of twenty-three cadavers afforded him the following conclusions. Dr. Stewart observed, besides fatty granules in vessels, aneurisms of their walls, and thrombi within them, a more or less marked thickening of the outer coat of the small arteries. This, he says, is in some cases so distinct as to attract attention by its wavy, fibrous appearance, and the sinuous outline of the vessel, where no reagent has been applied. But these appearances become much more distinct when the specimens are placed for a short time in water or in glycerine, or when a little dilute acetic acid is added. "The condition thus described corresponds exactly to the appearances of the specimens of so-called hyaline fibroid disease which I examined."

"I found in several instances distinct thickening of the middle coat, with increase of the muscular fibres. I found no evidence of atrophy of this coat. Thirdly, I found the internal coat in some parts thickened."

Dr. Stewart has found the three coats thickened in the same artery, and he failed to find in the capillaries any evidence either of thickening or of exudation on their walls.

Of Dr. Stewart's 23 cases, in 12 the blood-vessels were healthy, 5 had the middle coat thickened, 3 to a marked extent, and 2 to a slight. There were 10 in which the outer coat was thickened, and 4 in which the middle coat was also thickened. Of the 12 in which the walls were natural, there was—(1) Case of chronic peritonitis; (2) one of phthisis, with slight cirrhosis of the kidneys; (3) one of cystic disease of the kidney, fatal by uræmia; (4) one of slight cirrhosis of the liver and kidneys; (5) one of tubercle of the lungs, pleura, and peritoneum; and cerebral embolism; (6) one of typhoid fever; (7) one of pleurisy and double pneumonia, and cerebral embolism; (8) one of cirrhosis of the kidney with aneurism; (9) one of phthisis, with combined waxy and inflammatory Bright's disease; (10) one of phthisis, with inflammatory and slight waxy disease; (11) one of insolation, with slight cirrhosis of the kidney, with hypertrophy of the heart; and (12) one of waxy Bright's disease.

Of the 5 cases in which the middle coat was hyper-

(a) Brit. Med. Jour., Nov. 15th, 1873.

trophied—(1) one was a case of inflammatory Bright in the second, passing into the third stage; (2) one was another example of the same disease, fatal by hæmorrhagic apoplexy; (3) one was a case of cirrhosis of the kidney, in which the kidneys were about the normal size—in these it was well marked; (4) one of perinephritic abscess with atrophy of one kidney, and compensating hypertrophy of the other; (5) one of advanced cirrhosis of kidneys and liver.

Of the 10 cases in which the outer coat was thickened—(1) one was a case of valvular disease of the heart, with congestion of viscera; (2) one was a case of inflammatory Bright's disease, fatal in commencement of third stage—the middle coat was also thickened; (3) one was a case of acute alcoholism; (4) one was a case of carcinoma of the uterus with hydronephrosis; (5) one was a case of typhoid fever; (6) one was a case of cirrhosis of the kidney—the middle coat also was hypertrophied; (7) one was a case of perinephritic abscess—the middle coat was here also somewhat hypertrophied; (8) one was a case of inflammatory softening of the cord; (9) one was a case of commencing cirrhosis of kidneys and liver; and (10) one was a case of advanced cirrhosis of kidneys.

In 12 cases of Bright's disease the vessels were natural in 7. Of these 7, 1 was a case of waxy, 2 of waxy and inflammatory combined, and 4 of cirrhosis. Morbid conditions of vessels existed in the remaining 5 cases, of which 3 were cases of cirrhosis, and 2 of inflammatory disease. One of the last-named had the outer coat natural.

These facts seem to indicate, continues Dr. Stewart—1st. That the waxy forms of Bright's disease, and the inflammation in its early stages, have no relationship to the state of the vessels under consideration (this I have already endeavoured to explain); 2nd. That in regard to cirrhosis, although changes in the vascular walls were present in 3 cases, they were absent in 4. There seems, therefore, Dr. Stewart thinks, to be no constant relationship between the one condition and the other. Of the 10 cases in which the outer coat was thickened, there were 6 in which there was no Bright's disease whatever; but the middle coat of the arteries was hypertrophied in 5 cases, and 4 of them were cases of long-standing Bright's disease, while in the 5th one kidney was destroyed. This condition occurred in *none of the whole series that was not renal*. With respect to the relationship between the state of the vessels and hypertrophy of the heart, Dr. Stewart's cases furnish the following evidence: In 12 of the cases noted as normal, the heart was hypertrophied in 4. Of the 5 cases in which the vessels had thickened middle coats, the heart was hypertrophied in 4, and all of them were cases of Bright's disease. Of the 10 cases in which the outer coat was thickened, it was hypertrophied in 5, of which 4 were cases of Bright's disease, and 1 had valvular affection, while it was normal in 3 and small in 2. It should be stated that Dr. Stewart's experience differs from that of Dr. Johnson as to changes in the renal epithelium. He says, "I have not in these cases found changes in the epithelium, but have never failed to find increase of the connective tissue." (a)

*Analogous Changes in other Organs.*—The organs most frequently affected coetaneously with the kidneys in Bright's disease, and presenting similar pathological conditions, are the liver, the spleen, and the pancreas. In a secondary manner the intestines and the peritoneum are occasionally affected; leaving out of consideration at present the organs liable to œdema, and the diseases of the vascular system, and the cerebral disorders arising from associated apoplexy and blood-poisoning.

With respect to the *liver*, Dr. Bright found it sound in 40 cases out of 100, the change was slight in 35, and serious in 18 cases. Rayer's experience gives affection of the liver in a third of his cases, in some throughout its entire extent, in others only partially. It was enlarged

in a small proportion of cases—a sixth—and chiefly in those cases where there coexisted cardiac affection. Occasionally a portion of its peritoneal surface was adherent to the adjacent parts. In a few cases it was softer than natural, but more frequently harder, indurated, and diminished in bulk. In the latter case its surface was irregular, and of a deeper colour than usual. On section diverse morbid colours are presented. Sometimes it is pale and anæmic, its vessels containing very little blood. At other times, on the contrary, the liver presents a deep congested colour. The two conditions may co-exist in the same liver. In other cases irregular yellowish patches are apparent on the surface of the liver, interspersed with an irregular colouration of a deeper red colour than the healthy organ. These pale and red colourations prolong themselves into the interior of the organ at times. As in affections of the kidney, the liver sometimes offers a kind of exaggeration of the natural aspect of the organ. On section it appears as if granulated. This appearance seems due to a congestion of the vascular substance of the organ, by comparison with which the other portions seem paler.

As in the case of the kidney, the tissue of the liver may become the seat of fatty degeneration. The hepatic cells become loaded with fat, and the etiology is doubtless the same as in the corresponding renal affection. This condition is frequently coexistent with an increase of the interlobular connecting tissue of the hepatic parenchyma, which is an essential feature of cirrhotic degeneration; and hence Gluge and Lerboullet were led to the conclusion that cirrhosis proceeded from deposit of fat in the hepatic cells. Gluge called this particular form of cirrhosis "steatose," and described another which he believed to be due to interlobular hepatitis. In chronic cachectic nephritis fatty granulations of the liver are not unfrequent, and it cannot be doubted that they have a close affinity with the same appearances in the kidney—nay, that they are manifestations of the same constitutional diathesis. When the liver presents these granulations it is generally harder than in its normal condition.

In the true cirrhosis of the liver—the hob-nail liver of drunkards—and the analogue of the corresponding affection in the kidney, the external surface of the liver is darker in colour, crimped and irregular, and considerably diminished in size. When divided, the natural appearance is in a great measure removed, and the section presents a tuberculated surface, infiltrated with a yellowish material, grating under the scalpel; the calibre of the vessels is diminished. Furthermore, chronic atrophy of the liver presents another correspondence with the like condition in the kidney, in that the walls of the portal vein are remarkably thickened, and that in the advanced stages there is total destruction of the hepatic capillaries, and shrivelling or complete disappearance of the secreting cells. This affection of the liver causes death by the retention of bile products, just as that of the kidney does the same by retention of urinary products.

The waxy or lardaceous degeneration of the liver in like manner presents analogies to the corresponding condition of the kidney. The initial change takes place in the gland cells; the appearances are ill-defined, and easily overlooked. The first indication is that the middle portions of the lobules become reddish-yellow, translucent, and firmer than natural, and sharply defined from the surrounding dull grey rim, and hence the lobular structure is usually distinct. A solution of iodine develops glistening pellucid places everywhere of a deep red colour, the surrounding rim being only pale yellow. Ultimately the minute vessels of the liver become affected in a similar way, just as those of the kidney, their walls becoming thickened, homogeneous, and lustrous, and their channel narrowed, sometimes entirely obliterated.

As to the influence of alcohol in the production of affections of the liver, there can scarcely be said to be a difference of opinion among physicians, and Budd consequently remarks that spirits are more injurious when taken undiluted and on an empty stomach. Different views

(a) Vide Dr. Grainger Stewart's paper, *Litt. Med. Jour.*, Nov. 15th, 1873.

have been entertained as to the intimate nature of fatty liver; Andral, Thomson, Barlow, and Cruveilhier, &c., regard it as a form of atrophy. I do not regard it primarily as atrophy; the atrophy is secondary, and consequent on the degeneration of the secreting cells, as in the case of the kidney; and the opinion of Lerboullet singularly coincides with what I have advanced regarding the purposes to which fibrine is applied in the liver (*vide* pages 30 and 31), and my view of fatty degeneration in the kidney. This authority remarks: "Le développement de la graisse dans ces cellules paraît étroitement lié à un ralentissement dans le travail nutritif, et à la combustion organique, qui est la première condition de ce travail." I say this sentence accords in a remarkable manner with the phenomena of fatty degeneration, diminished temperature in uræmia, and the views of pathology advanced above.

*Affections of the Spleen and Pancreas in Cachectic Nephritis.*—In almost all instances in which the liver is affected as described, the spleen presents corresponding structural changes. Dr. Grainger Stewart has found its capsule thickened and its structure fibrous in 33·3 per cent. of cases of Bright's disease. The spleen is sometimes considerably enlarged; Rayet has seen it four times the normal volume, and full of fatty granulations similar to those which occur in the liver. In other cases where there are no granulations, the organ is friable, sometimes soft, sometimes hard and firm. In general it presents a deep colour; but on section its tissues sometimes present an appearance similar to a slice of certain sausages; at other times it is pale, exsanguine, and flabby, its texture extremely apparent, and the finger with difficulty penetrating in its structure. The spleen is sometimes the seat of tubercular matter, but this in connection with Bright's disease is a mere coincidence. Rayet has seen the spleen the seat of a large sac which communicated with the stomach.

*The Pancreas* is very seldom diseased in cases of chronic nephritis; Bright found it congested in one case, hard and firm in some, and obstructed in one case. In phthisical cases tubercular deposits have been found in it. Rayet never saw it very different from the healthy condition in nephritis. Disease of this organ has appeared in some cases in the course of pregnancy. Taking the various pathological appearances together, the etiological conditions, the anatomical and physiological similarities of the kidneys, the liver, and spleen, it cannot be doubted that their affections, in conjunction with cachectic nephritis, are not mere coincidences, but proceed from the same constitutional diathesis.

Among the diseases with which cachectic nephritis is not unfrequently coincident may be enumerated bronchitis, pneumonia, pleurisy, phthisis, psoriasis, scarlatina, syphilis, &c. The discussion of these, however, would simply be the discussion of the diseases themselves, would throw no light on the subject of cachectic nephritis, and are beyond the limits assigned to these remarks.

(To be continued.)

## MEDICAL SCIENCE AND MEDICAL TEACHING.

By GEORGE BARRACLOUGH, M.A. (Cantab.), M.R.C.S.

If, with a view to ascertain the ideas which are chiefly prevalent as to the nature and foundation of the medical sciences, we examine the opinions put forth on the subject in various lectures and addresses during the last few years, we shall find a current coming to the surface, and having a tendency to set in the direction of what is called empiricism and positivism. If, further, in regard to the doctrines ascertained to be current amongst us at the present time, we should wish to examine them, in order to gauge their value with respect to consistency, truthfulness, and probable influence on the progress and advancement of medical knowledge, it would be necessary either to examine many utterances on the subject, with a

view to ascertain their general purport and character, or to endeavour to find some one mind the expression of whose views might be deemed representative of all others of a kindred character.

I think we may justly consider that we have such a representative mind in Dr. Wilks, whose doctrines, put forth not long since in certain lectures and addresses, evoked, as the reader knows, some discussion at the time, though not so much as, from the importance of the subject, might have been anticipated. It is from a feeling that the discussion elicited at that time was inadequate and unsatisfactory that I venture what follows. It is from no love of controversy in itself, but because I consider Dr. Wilks a good representative man that I select his views as a medium for the examination of a very remarkable phase of medical opinion; and we may justly deem it a piece of good fortune that a physician of so much experience should come forward and speak boldly and at large where others had spoken in a more hesitating and less systematic manner.

Although Dr. Wilks professes the most profound horror of theory in therapeutics, yet his doctrines are abundantly theoretical, and also abundantly egotistical—faults in his, though not in my view. And what we have to examine in reference to his views are—1st, his theory of empirical therapeutics; 2nd, his theory of disease; 3rd, his theory of science; and, 4th, his theory, or "canon," as he calls it, of criticism.

Presuming that the general tenor of Dr. Wilks's views is not unknown to the reader, I may remark that the whole force of his objection to the doctrines of those who associate some theory with their practice is based on the tacit and theoretical assumption that there exists a universal and uniform experience amongst empiricists as to the value of drugs; and the individual opposition he makes to the practice of theorists is authoritative as based on this assumption. There is a *petitio principii* running through and vitiating the whole of Dr. Wilks's argument on this point. The very question in dispute, and the one which most needed proof, is assumed from the beginning. Otherwise, how could our author venture, as he does, to pronounce any drug absolutely valueless in the treatment of certain diseases, seeing that, in the absence of science, the value of any drug consists in the fact of some one believing it valuable. And there is scarcely a drug in the Pharmacopœia that someone has not believed to be of the highest value in the treatment of certain maladies, where others, by the light of their differing experiences, have come to believe the same remedy quite valueless in that class of diseases. All empirical treatment of disease is founded on faith—faith in the truthfulness of the inference drawn by the individual mind as to the share any given drug has had in promoting the recovery from disease; and there are almost as many beliefs, and these conflicting ones, as there are individual empiricists. To prove this point it would hardly be necessary to go beyond the limits of the discussion evoked by the publication of Dr. Wilks's views. Certain it is that the most cursory inspection of medical practice or medical literature makes it only too clearly manifest that the results arrived at by individual empiricists as to the value of certain drugs in the treatment of certain diseases are quite as varied and quite as contradictory as are the doctrines of theorists. I have before me a paper remarkably free from theoretical views, in which an eminent physician, as the result of his experience, records his testimony to the great value of opium, chloral hydrate, and bromide of potassium in the treatment of chorea. And these are the very remedies which Dr. Wilks, another empiricist, discredits and finds valueless in the treatment of that disease.

Writing of theoretical practitioners, Dr. Wilks affirms: "It is no doubt true that very many eminent men can give a reason for the faith that is within them; but how do they explain the success of their friends who have an equally strong contrary belief?" And, again: "As regards the propriety of administering *laxatives* in typhoid

fever, we have very contrary opinions expressed by eminent men, according to their theoretical views of the nature of the disease." Now let us put the above into a slightly different form, and see how well it applies. It is, no doubt, true that many eminent empiricists can show completely to their own satisfaction the successful results of their empirical treatment of disease; but how do they explain the successful results of their brethren, whose equally large experience has led them to adopt a wholly contrary method of treatment?

As against theorists, it was necessary for Dr. Wilks, when not falling directly back on himself, to invent the fiction, or hypothesis of a uniform experience, by which to judge of "value" in therapeutics, so as to have the appearance of confronting the varying and conflicting views of theorists with some sort of certainty and uniformity. Otherwise, there remained only the task of opposing one uncertainty with an equal uncertainty on the other side—a proceeding wholly valueless for the purpose in view. A parallel proceeding on the part of some controversial theorist would be to invent the fiction of one solely prevalent theory, contrasting this with the variety and contradictoriness of experiences, and then to have this hypothesis denied by some empiricist as ludicrously inconsistent with the real fact—viz., the existence of a vast number of conflicting theories. It does not appear to have occurred to Dr. Wilks that it was open to theorists to make this denial in respect to his own fiction. And yet it *does* seem so very natural when the learned doctor insists that "we should do far better to administer remedies in accordance with experience," to enquire, What experience? And when the reply points to the hypothetical experience it seems only natural to deny the validity of this as not in harmony with the real facts—viz., the variety and conflicting nature of actual experiences. And, again, when we are assured that particular remedies have been found valueless in particular diseases, we put the query—Found valueless by whom, or by what? And when the phantom is again pointed to as authority, the same denial naturally occurs to us. And then, after all, Dr. Wilks's hypothesis, though tacitly assumed to be self-evident, yet, as being unproved and unfounded, is only an indirect falling back upon self. For what the case really comes to is something of this sort: "I have employed certain drugs in the treatment of certain diseases, and having arrived at the belief that they are valueless in those maladies, I affirm them to be 'absolutely' of no value in such cases, because I believe this, because this is *my* belief about them." When matters, not of demonstration but of faith, are under consideration, this sort of emphatic language is only consistent where the person uttering or implying it, claims to speak as with a voice from Heaven, and this claim, accordingly, has in all ages been either virtually or actually put forward by the persons so speaking; but no such claim is conceived to be advanced in the present case. This, then, is the wrong sort of egotism, and one that cannot secure our approval. It is quite another thing to say, as might have been said, "After long and patient observation and experiment I have come to believe that certain drugs are valueless in certain diseases, and I bring forward this belief of mine, with the grounds of it, for the consideration of those engaged in the treatment of these diseases, so that they may either corroborate or correct it." This is the right sort of egotism, and one calculated to secure our approval; but, then, it would have been of no avail against theorists. The relevancy of these considerations to Dr. Wilks's views will further appear when I come to consider his canon of criticism.

Next, in what light does our author regard disease? what is his theory or conception of it? That he has some conception of it, his language would seem to imply; though what its positive characters are, it is not easy to determine. He informs us that he can show "the incorrectness of the opinion that a disease is nothing more than the totality of the symptoms." Yet this promise helps us less than we have a right to expect; for, instead of

fulfilling it in the way of showing or proving the "incorrectness," he goes off into quite other considerations; and hence we have, in place of proof, little else than the simple dogmatic affirmation of what disease is not. If, with Dr. Wilks, disease is something more than, and different from the physical symptoms or phenomena (for he uses the term indifferently) which indicate its existence, I presume we may justly infer that it is something with which we do not become acquainted through the senses, nor, indeed, through the reason, for Dr. Wilks's philosophy of knowledge, so far as he has one, does not favour the idea of any entry through this portal. As to the manner, then, of acquaintance with this disease, our only resource is to suppose that, by virtue of some intrinsic peculiarity of our author's mind, the conception arises intuitively on the contemplation of the phenomena, as the result of an instinctive belief which, so far as we are permitted to see, only enables its possessor to clothe his object with little more than the attribute of bare existence of an external or objective character. For want of a better term this sort of existence is what, in Kantian language, we must designate as noumenal. Our author evidently goes so far as to clothe his noumenon with externality and objectivity, for it is that to which he applies remedies, and urges others to do the same, it being a vain thing to apply remedies to the phenomena which only imply its existence. The most that we can add to this is that disease, as here contemplated, has a tendency or direction (though without any spatial relations), for it is spoken of as being guided in its course. This is all that we can say as to the origin of our author's conception of his very remarkable entity, if we are to take him at his word as to the methods of investigation which his philosophy rejects. Yet the real source of his theory of disease is plainly not far to seek. It manifestly has its origin in those very rational or metaphysical processes the use of which he so emphatically disavows—viz., in the processes of abstraction and generalisation from actual phenomena as perceived through the senses. But, then, the recognition of this on the part of Dr. Wilks would have involved the admission that, in order to frame a just conception of disease, it is necessary to apply to facts those very rational and theoretical processes which find no place in his philosophy. If, on rejecting the doctrine of the phenomenologists, he had paused to consider what account could be given of the source or origin of his own doctrine and knowledge of disease, he could hardly have failed to perceive how wholly misplaced was his horror of theoretical and rational processes; for he would then have seen that he was doing precisely what he censures in others—viz., theorising—adding one more variety to the theoretical views of the nature of disease. Had he halted at theorising, or doing what we all must do if we are to acquire any knowledge worthy of the name, he had not done ill; but not content with such reality as resides in physical fact, nor in scientific nor mental creations ('creatures of the fancy'—these were here the bug-bear), he must fall back on the fallacious process of misrealising his mental creations by giving them an objective and transcendental existence outside both the mind and phenomena. Thus, as a last resource, by one *salto mortale* he bounds right into the phantom land of Noumena, whither we must decline to follow him.

The real, though doubtlessly unconscious manner in which Dr. Wilks has been led to his doctrine of disease is precisely similar to that by which a certain school of metaphysicians has arrived at the doctrine of an unknowable noumenon, or "thing in itself," as external substratum of sensible qualities, and which process has been thus described by a late eminent psychologist: "What suggests the supposed substratum is merely *notionalism*, or wrong conclusions from the manner or process of our knowledge, which is the describing things by predicating qualities of them, so that in the *process* of knowledge we have to suppose the thing (for it is only temporary supposition) independent of each, and, therefore of all its qualities." What has misled Dr. Wilks is the sign of the possessive

case. Because, as a necessity of thought, we are obliged to consider disease as a unit, as a whole, though the whole is phenomenally unknown to us, so, in the use of language, we are obliged to employ such phrases as these—"phenomena of disease," "facts of disease," &c., implying by their form that disease is regarded as something more than its phenomena. Such language, of course, has its origin, in the logical or metaphysical point of view, the one, indeed, which has not been without its influence on the mind of Dr. Wilks, though he has marred it by mis-realising the metaphysical conceptions which constitute it, *i.e.*, by giving them an existence beyond both the mind and phenomena, by the same process which, as we have seen, has led philosophers to the invention of their unknowable substratum of qualities. But I shall enter into a fuller discussion of this part of the subject when science is under consideration.

Those physicians who regard the phenomena with which they are, or may come to be, acquainted, as constituting disease, point out positively to the senses as the source of their "knowledge," as they call it. And when they are censured by Dr. Wilks for supposing that this definition represents the disease or reality to which remedies are to be applied, they naturally enquire, "What sort of real entity do you offer us as a disease in opposition to our very positive physical facts? and what do you point to as the source of your knowledge, as against the very clear and positive information we give you as to the origin of our knowledge of disease? Why, you only present for our contemplation a something vaguely clothed with hyperphysical existence, which is as much beyond our powers of cognition, as it is beyond our powers of sensation. And yet to this phantom you invite us to apply genuine physical remedies, we not conceiving how such heterogeneous things can come together, but rather presuming that phantom disease requires phantom drugs, and we have none of these in our Pharmacopœia. And then, in opposition to our clear indication of the positive sources of our knowledge of disease, what do you tell us of the source of your own? Why, nothing at all of a positive nature; you simply leave us to infer the source by what—if we are to take your word for it—you have excluded. And thus we come to a "belief" which arises intuitively on the contemplation of phenomena as the source of your knowledge of disease, and which suggests the conception of a thing so vague and shadowy as wholly to escape our apprehension. For our own part, we know nothing of any such belief and conceptions in our own minds, and therefore with all deference to a mind differently constituted from ours, we cannot receive them as authorities.

Dr. Wilks urges on us the necessity of discovering the origin of disease so as to "attack" the cause. As our author's views of causation are not revealed, I will venture no remarks about the "cause," as not knowing whether he here means remote cause, or proximate cause, or efficient cause, or final cause. Perhaps he means, by cause, the first link in the chain of physical sequences, as he speaks of origin, though this is only conjecture. But what a vista opens up to us in respect to this search after origin! To accomplish what is suggested, we must—since everyone is born with his death—trace back the antecedents of actual morbid phenomena to the segmentation of the ovum. And, yet, this is going only a very little way; for this segmentation has its physical antecedents, and we have to ascend through a series of events of unknown duration to the primordial mundane egg (or however we like to conceive of origin), and to the segmentation of *that* ovum, even for those who are content with the contemplation of purely physical phenomena and the merely historical conception of cause; and for those who are not so content, but regard efficiency and finality, there is the further consideration of the first genetic conception of Ormuzd and the result of the hostile action of Ahriman on its realisation, an undertaking Titanic enough in all conscience, especially as it all has to be done without any aid from theory; and this leads us to the consideration

of our author's views of method, and of science or knowledge.

Dr. Wilks informs one of his critics that in discarding scientific methods of treatment in disease he has no intention of denouncing truly scientific methods, though he denies that, in the present state of our knowledge, we are in a position to apply even these to the treatment of disease. That the present scientific methods are not truly so, he infers from the fact that they are many and conflicting, and that no one of them is generally received by the profession. True though these latter statements may be, it is impossible to receive them as a criterion by which to judge of the scientific value of a method. That theories or methods are many and conflicting is no argument that one of them may not be true, and that no one of them is generally received at the present time has likewise no force as an objection, for we have only to recall such names as Copernicus, Kepler, and Harvey to invalidate such an argument, when we recollect how the famous doctrines associated with those names were generally rejected by contemporaries, although irrefragably true. Dr. Wilks writes as if unconscious that there exist different views of what constitutes a truly scientific method, and that these differences of view are important and fundamental. We have here, again, a manifestation of that absolutism which we found in him in reference to experience and disease. He appears to think that in uttering the mere phrase "truly scientific" he must needs possess the "thing"—the absolute entity, about which there can be no dispute as to whether it is to be received or not. This sort of proceeding has the effect of concealing the real point at issue. The persons whose methods are decried manifestly deem them as truly scientific as the nature of the case permits, otherwise they would not apply them. They might justly retort on their censor—What you affirm to be truly scientific is nothing other than what you conceive to be such—is your conception of what constitutes it; and if you frankly disclose to us what your conception is, we may or may not find something in it to adopt. Pending this disclosure we stand on our own equal rights, and prefer to follow what *we* conceive to be truly scientific. But when you shift your ground from the real point at issue, and try to confound us with insinuations about the existence of a noumenal, or an absolute scientific entity—in the way of method—binding on all by its very nature, though only existing somewhere in Phantomland, and that existence only vouched for by your own easy belief, which we can by no means receive as an authority, we must, as sane men, simply decline to entertain such doctrine for a moment.

However, let us try to get clear of this phantom business, and proceed to investigate Dr. Wilks's theory of method, and of science or knowledge. In this way, perhaps, we shall be able to arrive at a conjecture as to what his notion of a truly scientific method would be if he could relinquish his absolutism, and venture on undisguised mental conceptions like other people. But here again, we shall have to be guided to any result, rather by what is denied than by what is affirmed, the positive element being sadly deficient.

Bearing in mind the maxim of the old theologians, that *optimi corruptio est pessima*, what Dr. Wilks considers a strong argument against theory, I, and many others perhaps, consider a strong argument in its favour. "This, then," he writes, "is another argument against theory in therapeutics, that it forms the stronghold of all the false systems, that charlatanism is entirely dependent upon it." In reference to this, I may remark that even Satan himself works most mischief when he comes clothed as an angel of light, and quacks perceiving the justly high estimation in which theory has always been held by the greatest scientific authorities, are too cunning to forego the advantages of siding with the learned where the learned and the vulgar agree. It is not the mere theorising, it is the dishonesty of the quack that is to be condemned. We are further informed, in respect to

theory, that "what we want are, not the theories of individuals wrought out in their studies, but fixed principles, obtained by the ordinary scientific rules." From this it would seem to be quite a point with Dr. Wilks that theory, bad at all times, should not be wrought out in any chamber devoted to systematic thought, and thence designated a study, some particularly noxious element being conceived, I presume, to lurk in such places. Will Dr. Wilks, then, only barely tolerate theories when elaborated in the back kitchen, the street, or some open place—as a mountain-top, say; but that is so abominably cold! Would our author reject, for instance, Kepler's theory of the planetary orbits because it was elaborated in the philosopher's study, and not on the very paths of the orbits themselves? I have no wish to indulge in jesting; I am striving to find out what all this means. Does it mean simply that men ought to be painstaking in their researches, that they ought not to make abstractions hastily (*notiones temerè a rebus abstractæ* of Bacon) nor propound theories at random? If so, would it not have been as well to have said as much rather than indulge in phrases which discredit all theorising, whereas it is only some sort of theorising, or spirit of theorising which ought to be discountenanced. What beginners in science need is not to be cautioned against all theorising in the search after knowledge, but to be put on their guard against considering any provisional suppositions they may make as anything more than provisional, to be promptly rejected if found inconsistent with fresh fact. Kepler acted in this spirit when he not merely invented, but rejected nineteen theories before conceiving the twentieth, which gave the famous law of the planetary orbits.

(To be continued.)

### HYDRATE OF CHLORAL.

BY ALEXANDER G. BURNES, M.B.

THIS drug is so widely used in the present day as an hypnotic, that it may not be out of place to call attention to some of the cases in which its use is contra-indicated, the more so as several cases have been reported in which its use has been attended with serious or fatal results. The physiological action of chloral is no doubt due to its decomposition into chloroform and formic acid by the alkali of the blood, as stated by Liebreich, and chloroform being thus slowly evolved, the oxidation of the blood is lessened, as well as the evolution of carbonic acid; it is also probable, as has been recently stated, that the chloral may in the system enter into combination with albumen, and thus its decomposition may be retarded in some cases.

Bearing the above in mind, we can easily see how the use of chloral is contra-indicated in many lung affections, especially bronchitis and emphysema, where, by lessening the oxygenation of the blood, it would tend to produce lividity, or even febrile symptoms, with delirium. Dr. Sidney Ringer states that this is especially the case when emphysema and bronchitis are accompanied by obstructed circulation, in which case the effects may last several days.

Dr. Pollak (see *Medical Times and Gazette*, April 11th) also believes chloral to be unsuitable, or even dangerous, in diseases of the lungs and heart.

Chloral is likewise contra-indicated in many cases where there is heart disease, for several cases are on record where the administration of chloral has been followed by sudden faintness, weakness, and irregularity of pulse, great prostration, dyspnoea, and even death, these effects being probably due to the direct action of the chloroform on the heart, and in some states of the system the chloroform may be more quickly evolved than in others: thus, in an experiment conducted by Mr. F. J. Mavor and myself, 4 oz. of chloral dissolved in 40 oz. of water was given to a horse, and five minutes afterwards he fell down insensible, the

pulse increased from 36 to 50, but was feeble, almost imperceptible, pupils fully dilated, muscles relaxed, frequent sighing and complete anæsthesia; the temperature gradually fell from 100° to 95½°; while in another experiment the same quantity was given to the same horse dissolved in 10 oz. of water, only producing restlessness, drowsiness, purging, dilatation of pupils, and in an hour and a half, delirium, followed by slight sleep.

Chloral is likewise contra-indicated in diseases of the intestinal canal (Dr. Pollak), being liable to cause irritation and purging, especially if given in a too concentrated solution.

It is advisable not to continue with the administration of this drug for a very long period, as cases are known in which mal-nutrition of brain and nerve centres has been induced, with loss of memory and muscular strength, and in some cases imbecility and paralysis.

Lastly, chloral should be used with caution in parturition, as it may in some cases exercise a deleterious effect upon the child, as it is not so rapidly eliminated from the system as chloroform. Further research on this point is required. In conclusion, I may say, this subject is deserving of investigation, considering the reckless manner in which syrup of chloral is used by the laity as an hypnotic in all forms of disease, with, in many cases, serious results; and it is clearly the duty of the medical profession to thoroughly investigate its chemical, physiological, and therapeutic action so as to ascertain in what diseases it may be used with safety.

### REPORT ON SYPHILIS.

BY C. R. DRYSDALE, M.D., M.R.C.P.L., F.R.C.S.E.

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DR. FOURNIER'S LECTURES ON TERTIARY SYPHILIS.

*Complications.*—The principal complications of the gummy tumour relate either to the evolution of the gummy ulcer or to the reaction exercised by the tumour on the integuments in its neighbourhood. Let us first of all speak of those which relate to the evolution of the gummy ulcer. When the gummy ulcer is produced by the evacuation of the tumour and ulceration of the skin which covers it, it does not always tend to repair and cicatrise. Far from this, in certain cases, on the contrary, it persists if not attended to, for a long time. Thus, I have seen a patient with a terrible ulceration of the scrotum following upon a gummy tumour beneath the scrotum. This ulcer, the nature of which has remained unrecognised, dated several months back.

The gummy ulcer may progress, extend, and this far beyond its early limits, by destroying the whole thickness of the integuments, and besides putting on all the characters of a gummy ulcer which I have described above. This is the extended gummy tumour. It may even (but this is very rare) take on the phagedænic form.

In the second place, gummy tumours may create complications in their vicinity. Thus, gummata of the cranium, when unrecognised and untreated, have been known to denude the cranial bones, cause osteitis and necrosis (without mentioning the other possible accidents of these last lesions by reaction on the brain).

Dr. Mendeveille has related the fact of a gummy tumour seated near the sterno-clavicular articulation, which, unrecognised and untreated at first, caused caries of the clavicle and sternum, a caries which in its turn brought on other complications and was followed by death.

*Relapse of Gummy Tumours after being cured.*—In the last place I will point out to you a fact but little known, and absolutely-neglected by our classic writers, and yet very worthy of interest, as it seems to me. This is a sort of posthumous complication of the gummy tumour. I will explain myself. When a gummy tumour has gone through its evolution, run through all its phases and become cicatrised, it may happen—would anyone think so—that all is



not over with it. It may happen that it will be born again, as we might say, from its ashes, and reproduce itself by ulceration of the cicatrix. Of this I have already seen several examples. I have had a typical one modelled, which will explain to you better than I could do the renewed life of the gummy ulceration. Here it is:—

One of our patients, most severely attacked by syphilis, was affected, besides other accidents, with a gummy tumour of the foot. This tumour ran through its period and became cicatrised. Then, some time afterwards, the scar, although well made, and appearing to be resistant and definitive, opened at several points. New ulcers appeared, hollow, with sharply-cut edges, putri laginous base, and quite resembling those which the scar had followed.

*Diagnosis.*—Like that of all syphilitic lesions, the diagnosis of the syphilitic gummy tumour rests upon these three orders which I have spoken to you about some time ago as forming the basis of all diagnosis—the consideration of the antecedents, concomitant symptoms, and the characters peculiar to the lesion. I need not return to speak of the importance of the two first elements of diagnosis. Let us come to the proper characters of the lesion.

Does the gummy tumour present anything special or pathognomonic. As to pathognomonic, I dare not answer yes absolutely; but as to very special, I reply yes. That the gummy tumour is most specially destructive is, on the one hand a proper anatomical fact; on the other, an evolution proper to itself. The anatomical fact is the existence of the gummy slough, of this fleshy slough, white and filamentous, of which I have spoken to you already. The evolution is still more characteristic, and it is this which nosologically and clinically in my idea distinguishes best of all the gummy tumour, that is to say a tumour, primitively solid, becoming soft further on and ending in an ulcer of a rather special aspect. Solid tumour, softened tumour, and consecutive ulcer, thus is the triple phase of the gummy tumour. Well, if each of the three terms of this evolution be not special in itself, their grouping is truly characteristic of the gummy tumour.

Add to this that certain attributes of secondary character confer also on the gummy tumour a rather distinct physiognomy: the rather rounded form of the tumour, indolence at the commencement, volume usually not very large, central softening, nature of the liquor evacuated, sloughy appearance of the consecutive ulcer, stationary tendency of the ulcer, &c. There are in these various signs assuredly useful elements of diagnosis.

It is certain that a tumour which runs through three successive stages, in each of which it appears under a different form, may often and must affect resemblances and analogies of aspect with morbid states, and very different morbid states. Thus, the solid gummy tumour approaches in its symptoms all solid tumours: adenoma, cancer, fibroplastic and other tumours; the fluctuating gummy tumour has a certain analogy with cold abscess, or scrofulous abscess: the boil, sebaceous tumours of the skin when dissolving, &c.; the gummy tumour in the state of an abscess may be confounded with other syphilitic lesions of ulcerated form, with simple ulcers (notably on the lower limbs), with scrofulous ulcers, &c. But it is also certain that if, at a given moment of its evolution the gummy tumour has some resemblance with one or other of these morbid states, it differs essentially from them in its entire history and evolution.

Thus, the clinical progress of the gummy tumour (without even speaking of commemoratives) permits us pretty easily in general to distinguish this tumour from the different morbid conditions mentioned above.

I will not, then, insist in respect to differential diagnosis except upon one point, because that appears to me to have a considerable practical importance—that is, the differential diagnosis of the gummy tumour from cancer. That, gentlemen, is not a confusion invented at pleasure. This confusion has been made many times, and I have already spoken a word to you about it. Sometimes, indeed, it has ended in operations much to be regretted, of which some

examples are contained in science. The affair then merits all your attention.

On what basis are we to institute the differential diagnosis between the gummy tumour and cancer?

Four orders of considerations may serve to make this diagnosis: 1, etiological considerations; 2, differences between the symptoms proper to each lesion; 3, state of the glands; 4, influence of treatment.

1. *Etiological Considerations.*—The gummy tumour has always been preceded by accidents of specific character, and perhaps may be accompanied by actual specific accidents. There is nothing like this in cancer. Let us reserve, however, here, the possibility of morbid coincidence, for a cancer may develop itself on a subject formerly syphilitic. Cancer develops itself by preference at an advanced age, and often in subjects hereditarily predisposed; the gummy tumour on the contrary, has no favourite age.

It is useless to tell you, however, that these first considerations have only a very relative value, and that we cannot found any absolute diagnosis upon these.

Clinical considerations are of more importance, and may be summed up in the following manner:—

In *cancer* the tumour is almost always solitary; the gummy tumour is sometimes solitary, often multiple.

The *cancer* tumour may be of any size, and is generally voluminous; the gummy tumour is small, or at most, of medium size.

The *cancer* is irregular in form, ill limited, and especially with protuberances; the gummy tumour is regularly ovoid, rarely with protuberances.

The *cancer* tumour is adherent, or becomes rapidly adherent to the skin; the gummy tumour is not adherent.

Cancerous tumours are painful, stabbing pains; the gummy tumour is indolent. And note that we compare here only the gummy tumour and cancer in the crude condition. If we were to pursue this parallel to the ulcerous period, we should have to point out many other differences.

Thus, the cancerous ulcer, proceeding from the superficies to the centre, and being irregular, fungous, with soft vegetations, bleeding, fœtid, and hæmorrhagic and extensive, &c., is very different from the gummy ulcer which follows a central softening and elimination of a slough, and never presents cancer buds.

3. *Condition of the Glands.*—I have designedly separated this special sign from the other clinical elements, hoping thus better to express its great importance.

In *cancer* the glands are very rapidly affected; in the gummy tumour the glands are intact.

This is an excellent sign, which, with very few exceptions, suffices (at any rate at a certain period) to distinguish cancer from gummy tumours.

4. *Treatment.*—There is no action on cancer by iodine or mercury. On the gummy tumour the resolutive action of these remedies is rapid, with very rare exceptions. Treatment here serves as a *touchstone*, as they say, so rapid is its action. It is therefore an absolute rule of practice, in the conditions where the diagnosis of cancer and gummy tumour may offer some difficulty, never to operate before having tried iodide of potassium. In fact, if we open the journals, we shall find numbers of observations similar to the following: A tumour presents, it is said, all the signs of cancer; to free the conscience, iodide of potassium is given, and the practitioner is stupified by observing this cancer resolve, melt away, and become absorbed. The pretended cancer was only a gummy tumour. I have myself seen several cases of the kind.

*Prognosis.*—Gummata of the cellular tissue have in general no direct gravity: there is more or less prolonged suppuration, with destruction of the skin to a greater or less extent, persistent scars; that is in sum the evil they cause. They are not truly serious, as far as lesions, save in a relatively small number of cases, and rather rarely. But gummy tumours are especially grave on account of the conditions they indicate: they testify to tertiary syphilis; they show that syphilis is entered into that period where serious lesions may appear.



In this point, again, there is a distinction worth making. An isolated gummy tumour—even two or three such tumours have the same prognostic signification as any other tertiary accident: they testify to the tertiary condition, that is all; they do not announce a specially grave form of syphilis.

Multiple gummy tumours, on the contrary, coming on simultaneously, or succeeding at short intervals, have an extremely grave signification: they testify to syphilis of malignant nature; they point to a profound infection, an unfortunate tendency of the diathesis towards morbid products multiple and dangerous, and to a grave reaction on the general health. When you see multiple gummy tumours on a patient, be warned that you are about to have rude attacks to support.

Everything is to be dreaded in such like cases; and the proof of this that multiple gummy tumours figure habitually and in the first rank in the *cortège* of the accidents which accompany syphilitic cachexia.

If now we make the influence of treatment intervene in the balance of the prognosis, we arrive at this result: Isolated gummy tumours (or at any rate non-multiple) in general undergo most marked curative influence from specific treatment. They are cured by the iodide of potassium. It is a miracle even to see how easily the iodide absorbs them. Multiple gummy tumours, on the contrary, are infinitely more obstinate: often they get well at one point only to arise in another: sometimes even they resist entirely.

*Treatment.*—Before saying what it is right to do against the lesions we are speaking of, let us commence to say what we ought not to do.

1. What we ought not to do (and history is before us to show whether these negative precepts are superfluous) is first to remove gummy tumours, or operate on them by any process whatever, were it the most perfect in the world. First of all the operation is painful, and may also be dangerous. Besides, it is a perfectly useless operation, for the iodide can replace the knife, and the knife itself would not be certain to cure. Gummy tumours, indeed, have been known to return after removal.

2. What again should not be done, is to attack gummy tumours with caustics, in order to open them or to destroy them. This is another operation quite as useless as the preceding for the same reasons.

3. What we must abstain from again is to open gummy tumours, even when fluctuating, as fluctuating as possible. And why? Because the resolution of a gummy tumour is always possible, at all its periods, even in the period of softening, even when the tumour is fluctuating. Examples abound in which gummy tumours have been seen to fluctuate, and on the point of opening, and yet diminish and be reabsorbed under the influence of the iodide.

We must, then, forbid any meddling with a gummy tumour, or opening of it, at any time whatsoever. This is the rule.

It is of course useless to add that this rule is not so absolute that it must be obeyed in all cases and without exceptions. Evidently, if special indications arise, or a gummy tumour is so advanced in its development that resolution is not to be hoped for, if by its presence it cause a considerable oppression or become the occasion of functional disturbance, the special indication here dominates the general rule, and we ought to satisfy it.

These negative precepts being laid down, let us see, in the second place, what we ought to do. What we ought to do is very simple: administer the iodide of potassium at once, in sufficient doses (1, 2, 3 grammes = 15, 30, 45 grains), according to the tolerance of the remedy, and in doses which must be stronger and more rapidly progressive as the development of the gummy tumour is more advanced. In such a case, I repeat, the iodide of potassium possesses a surprising activity in doing what no remedy can do for any other tumour, in absorbing it. It resolves and absorbs the gummy tumours with astonishing activity and rapidity. It resolves even the largest gummata.

It is always the iodide of potassium we ought to prescribe

at first; alone, in fact, it suffices most frequently for the cure. It is rather rare that we are forced to associate mercury with it.

The indication of calling in the aid of mercury to that of the iodide of potassium scarcely presents itself, except in two classes of cases. 1st. In precocious gummy tumours, when the disease is still young, at the time when the mercury is most active. 2nd. Against rebellious gummy tumours.

And it is also in these two orders of cases that it is fitting to put into action, along with specifics, the different agents of analeptic medication; for in these two orders of cases the production of gummy tumours is most frequently connected with a certain amount of impoverishment of the organism, with a bad general condition, whether anterior and foreign to the diathesis, or engendered by it.

Lastly, one word as to the local treatment of gummy tumours.

In the first and second periods treatment plays only a secondary part. Some have proposed, and often employ at this epoch, as adjuvants of the treatment, certain local means—friction of mercury and iodine, or with the tincture of iodine, blisters placed on the tumour, &c. It is difficult to gain any precise opinion as to the amount of action of these different remedies, for they have never been employed alone. What alone we can say of them is that they are not injurious, and that they appear to enjoy a certain degree of efficacy as resolutive.

But as soon as the gummy tumour is opened, local treatment is far the most urgent.

First of all, when the gummy tumour is being eliminated, some hygienic remedies are indispensable, baths and emollient poultices in order to moderate the peripheral congestion, with detersive lotions injected into the interior of the gummy cavity. Lastly, when the gummy tumour is laid open it is necessary to dress it. Practitioners have vaunted many ointments, and many solutions and topical applications for this purpose. I believe that none are so useful as the covering up the part with Vigo's plaster, a mode of dressing concerning which I shall have to speak at length apropos of tertiary syphilitic eruptions, and which in this case, as in these, succeeds admirably as a general rule. The gummy ulcer is, after all, only a tertiary skin disease; it should then be treated as such, and I postpone what I shall have to say to you to our next meeting, when I shall speak to you in detail concerning that kind of accident.

But when the gummy tumour is cured the task of the practitioner is not yet finished. We must remember that the gummy tumour attests a tertiary state ready to re-enter the stage, to be born again *in situ*, or to engender elsewhere accidents of another kind. The duty, then, of the practitioner is still to watch the patient, to warn him of the dangers he may encounter, and to ward these off by continuing the treatment of the diathesis for a long time after the local cure.

In another lecture, edited by Dr. Porak (*France Médicale*, June 3), Dr. A. Fournier speaks of the elements of diagnosis in tertiary syphilis, which may be derived from the three following sources:—

1st. *The proper characteristic of the lesion.*

2nd. *Co-existence of specific accidents.*—When account is taken of the possibility of coincidences, this is a very important element in diagnosis. As example of this, Dr. Fournier cites the following fact: A patient entered hospital with all the symptoms of a cavity in the lungs; at the first glance the diagnosis was made of tubercular phthisis; but on the following day, when the patient was more nearly inspected, there was noticed to be an exostosis on his body. This was a ray of light. M. Gubler, the able physician from whom this case was borrowed, suspected syphilitic phthisis, and gave iodide of potassium. Some weeks later, this patient, at first considered tuberculous, that is condemned to death, quitted the hospital perfectly cured.

3rd. *Specific antecedents.*—When based on these three considerations the diagnosis is at once sure and easy; but

it is rare that these are all found present in practice; the diagnosis then becomes very difficult and thorny, and we then obtain for the most part only the elements of probability.

Besides the difficulties inherent in all diagnosis, we meet with some special to tertiary syphilis. It is the latter class especially which ought first of all to arrest us; each of the three elements of diagnosis above alluded to may be wanting; and they may even all of them be wanting together, thus—

1st. There are few tertiary syphilitic lesions which present a pathognomonic symptomatology. The lesion we have to recognise has usually no special character.

2nd. Most frequently the tertiary syphilitic lesion is solitary, and we are unaided in the diagnosis by any other actual syphilitic manifestation.

3rd. The antecedents are most commonly wanting, especially in women. In that sex they are wanting on an average once in 4 or 5 cases, and they are wanting because they may be forgotten, misunderstood, or dissimulated.

In the diagnosis of tertiary syphilis we have to beware of two rocks—

1st. The very distant epoch at which tertiary syphilis may appear is of itself a cause of error and surprise.

2nd. The influence of the surrounding circumstances. There are certain conditions and certain surroundings where the physician forgets syphilis, where he no longer thinks of it, where he would not even dare to suspect it. The moral situation of the patient, his character, his social position concur more than once to confirm the practitioner.

*Prognosis and Treatment.*—The question of prognosis is closely mixed up with that of treatment. In a general way, we may say that tertiary syphilis is always serious, often grave, sometimes, and more frequently than is supposed, mortal. It is useless to add that the conditions of prognosis vary according to multiple elements, some connected with the lesion (its seat, extent, period, &c.), others on the condition of the patient. But what modifies most certainly our prognosis is assuredly treatment—"syphilis discovered, they say, is syphilis half cured." If this be true for syphilis in general, it is still more true for tertiary syphilis in particular, which is essentially under the influence of therapeutics, and obeys even better so-called specific agents than primary or secondary syphilis does.

Iodide of potassium is the remedy *par excellence* of tertiary syphilis. It enjoys such curative efficacy in the majority of cases that, without sinning from excess of enthusiasm, we may qualify it as a marvellous and incomparable remedy.

Yet we must not the less remember that iodide of potassium, even aided by mercury, is not all-powerful and infallible against tertiary syphilis. Truly, it cures in the majority of cases, but it does not always cure. Like all remedies, it has its weaknesses, its unsuccessful cases, its reverses. For one or other reason, tertiary syphilis is but too often obstinate to treatment, whether the remedies have intervened too late, or that around the syphilitic lesions there have been produced lesions of ordinary nature, such, for example, as in the case of syphilis of the brain. Round a gummy tumour, or near a caries, common encephalitis is produced: the iodide cures the gummy tumour or the caries but is inert against the encephalitis. Lastly, we ought to know that certain cases are, from their nature, beyond the powers of art.

Such are the cases where incessant relapses follow repeated cures, where we are always curing without ever curing; such are especially these cases, so grave, where syphilis at once has an evolution which we cannot better name than to call it desperate, accumulating accident upon accident, deriding all the efforts of therapeutics, and showing itself stronger than all remedies.

In general, adds M. Fournier, people are not sufficiently afraid of syphilis. To listen to some practitioners, all that is syphilitic ought to be cured because it is syphilitic. This is not always true, and those who see syphilis close to them learn to fear it more. Hence the practical conclusion: As syphilis exposes patients in the distant future to grave

dangers, it is important to combat it in its infancy to set aside the future possibility of such accidents.

To prevent is still easier than to cure, as far as syphilis is concerned; so that all is in the treatment constituted as soon as the diathesis begins. In presence of a case of early or recent syphilis, the result which the practitioner ought to seek to obtain is to set aside the far-off possibility of tertiary syphilis. The ideal he should pursue is to alleviate the diathesis in the present to make the future safe, and it is for this end that he ought at once to attack syphilis by a treatment at once immediate, energetic, and prolonged.

## ON INCONTINENCE OF URINE IN CHILDREN. (a)

By HENRY KENNEDY, F.K.Q.C.P.,

Ex-Physician to Cork Street Fever Hospital, Dublin.

DR. KENNEDY began by observing that though the affection could not, in one sense, be considered serious, it, at any rate, always entailed a great deal of annoyance, and was ever most difficult of cure, and in some rare cases it continued on even into adult life, so rendering the individual miserable. In many cases too, boys had to be taken from school on account of it, and this made it a very serious infirmity, for very obvious reasons. The author did not bring forward the subject with the hope of offering anything new, but in order to elicit discussion. Before alluding to the affection itself, he wished to draw the attention of the meeting to the marked differences to be observed amongst children at and after birth, and these differences went on even into childhood. They were seen in the external parts of the body, and also in the internal functions. Some had very sensitive stomach and bowels, others the contrary; some swallowed badly; some had their teeth very early, and others late; some walked much sooner than others; and when they were old enough the variety in the modes and powers of speech was very striking. It was known to all, too, that girls spoke earlier than boys, and that stammering was much more common amongst males than females. Now, all these differences, the author went on to observe, must arise from some inherent cause, and when they amounted to what would be called a defect, it was most probable they arose from some want of harmony in the functions of the nervous system. When a child was born with one side of the body weak, or atrophied, it was known that this was due to a want of development, or even an absence of some portion of the nervous centres. So the author took it to be—though in a very much mitigated form—in the affection of which he was about to speak. It was certain it could not be due to any abiding cause, inasmuch as all children, it might be said, grew out of it. But the author considered that the affection was as close to real disease as it could well be without being it. He drew attention to the fact, that while the incontinence of urine was a comparatively frequent affection, the bowel was not affected with it. Still, this did occasionally occur, and he had met instances of it. He also noticed the variety that exists, even amongst adults, as regards the performance of the functions of the bladder; and hence he concluded that if such were known to exist amongst them it might *a priori* be supposed to exist amongst children, where the several functions could not be supposed to have attained their maturity. The author went on to state that the affection was probably more frequent amongst boys than girls. But this point required further confirmation. In one remarkable case of which he knew, the infirmity had continued up to womanhood, and then the patient married, though under such peculiar circumstances. The effect, however, was that from that moment she was cured. It was worth keeping in mind that the affection was not confined to the night, at least, in some instances; there were exceptions, and he had seen one very recently. The boy was 10 years of age, and small for his years. This case was unfortunately lost sight of. A case of this kind was of course more serious than where the affection was confined to the night. As to the infirmity itself, the author said it required no description. The child wet the bed once, or it might be, as often

(a) Abstract of a paper read before the Dublin Obstetrical Society.

as three times in the same night, and this, as all knew, constituted the complaint. There was a feature about it, however, that was worthy of notice in connection with its natural history, and that was, that it frequently intermitted—that is, the affection would suddenly cease for a period, and then return, or it would lessen in intensity for a time. When the question of treatment was discussed this point was not to be forgotten, for that might be set down to treatment, which, in reality was but a feature in the affection itself. The treatment was divided into the mechanical and medical. Amongst the former was included the plan of Sir Dominic Corrigan, which the author thought could scarcely be successful, and might possibly lead to the prepuce itself being turned into a receptacle for the urine, and in confirmation of this he mentioned a case the particulars of which the late Sir Philip Crampton had told him, where the tying a thread round the prepuce for the purpose of keeping in the urine had led to the formation of a new bladder. If any plan of this kind were now tried the author observed that the pressure should be applied at the root of the penis, and further, it would be much easier of application now-a-days than formerly, inasmuch as vulcanised india-rubber could be used, a ring of which would probably answer the purpose well. It was evident, too, that it would require medical supervision, but could of course be only applicable to boys. A very old plan, with the same object in view, was the strapping on a bit of bougie, so as to compress the urethra. In one case where the author tried this plan it had failed; and like the last plan it also required close watching and attention. Of the medical means employed, blisters to the sacrum must not be forgotten. There could be no doubt, the author said, this means had succeeded. Of two cases in which he had employed it, it failed in the first; but in the second it was more successful, and stopped the infirmity for four months. The patient was at this time a girl of 8 years of age, and the mother was advised to wait till she became a woman, and she was told the infirmity would cease. Strange to say, this girl was brought to the author by her mother this past week; but though menstruation has been established, the infirmity is as bad as ever. She is now 15 years of age. Whether she will be cured remains to be seen. The regulation of the quantity of fluids taken, and the time, the author considered of much moment; and he particularly advised against the use of tea. There was one measure, too, he thought of the greatest consequence, and that was the teaching the patient, when such was possible, the habit of retaining the water as long as possible in the day time. By this means the sensibility of the bladder was lessened, and good was effected. The author observed that this plan was opposed to the one of taking up the child at night, which, though it diminishes the unpleasant effects of the infirmity, had no tendency to cure the complaint, but, as he thought, the very contrary. To two medicines only did the author allude, hydrate of chloral being one, and belladonna the other. There was already some evidence that the former had been of service, but it was not sufficient yet to establish its value. The latter, as a whole, had proved the most valuable drug yet used, and had cured a good many cases. Of two cases in which the author gave it it cured the first, a boy of 3½ years of age. In the second, a boy of 11, it has bettered him a good deal; but circumstances had prevented as full a trial of the drug as was desirable. In speaking of belladonna, the author adverted to the remarkable fact that children bore it in very much larger doses than adults. By gradually increasing the dose he had given it in very large quantities. It had rarely dilated the pupils, and then only for a short period. In prescribing it this point was not to be forgotten. There could be little doubt that the internal organs, especially the kidneys, were so active in childhood that the poison was very rapidly eliminated from the system.

## Hospital Reports.

### METROPOLITAN FREE HOSPITAL.

(Cases under the care of Dr. C. R. DRYSDALE.)

#### *Albuminuria Syphilitica.*

THOMAS AUSTIN, æt. 40, dock labourer, admitted into Prince's Ward 2, May 15th, 1874. States that three months ago first noticed his feet and legs began to

swell, and sometimes his face. Has only been able to do five days' work in three months. Has been much exposed to wet weather at his work; has been a moderate drinker; had syphilis twelve years ago; there are some scars on thighs. About nine months ago had a similar attack, and was ill for some weeks; is a big-built man, and looks pretty healthy; tongue clean; bowels open; passes but little water; pulse 76; the legs are swollen and oedematous; the abdomen is pretty tense, but nothing abnormal is felt; heart and lungs appear natural; urine is pale, acid, sp. gr. 1005, contains a very considerable quantity of albumen; takes food pretty well; says he has attended at this hospital off and on for four years for pains and lumps in his head, which were always worse at night. Soon got relief, and was well for a time.

To take M. Sal. lax., ʒj., t. d. Half diet.

26th.—Urine much the same; swelling no less; to have pot. bitart., ʒss.; pot. nit., gr. x.; pot. acet., gr. xx.; aq. ad ʒi., t. d. Pulv. scam. co., gr. x., p. r. n.

June 1st.—Bowels are freely open after medicine; swelling is less; prognosis bad.

8th.—Swelling of legs has much diminished, but urine still contains much albumen. Is now complaining of his head again, for which he is to take—M. Pot. iod. alk. ʒj. t. d.

9th.—Discharged. To be an out-patient.

#### *Hereditary Syphilitic Laryngitis.*

Stephen Carie, æt. 11 years, was brought to hospital on May 1st, 1874, by his mother, for great difficulty in breathing. The mother states that he first experienced difficulty in breathing some little time before last Christmas, when he was taken to the London Hospital, where, after he had been an in-patient for some time, tracheotomy was performed, and the tube was kept in some weeks, after which he was discharged much relieved; but the last few weeks he has become so much worse, especially at night, that the mother became alarmed lest he should be suffocated.

On examination of throat, irregular ulcers were found at the root of tongue and around fauces; he expectorates a large quantity of thick mucus. General health is pretty good, but he is rather thin.

The laryngoscope shows narrowing of the glottis and marks of old ulceration about the epiglottis.

Air appears to enter lungs in all parts; but there is a loud whistling sound over trachea and larynx during respirations. To take—M. Pot. iod. alk. ʒj. t. d. (gr. x.).

Mother is a strong, big, fat, healthy-looking woman. Has had twelve children, seven of whom died young—she says of fevers, &c. No history of syphilis can be made out, but she answered all questions in a most careless and indifferent manner.

Remained in hospital under same treatment till June 10th, when he was discharged much relieved and in better health.

This is the second case of hereditary affection of the larynx that has been under Dr. Drysdale's care in this hospital.

#### *Alopecia Areata, or Tinea Decalvans.*

Peter Carroll, æt. 8, came to the Metropolitan Free Hospital on the 27th February, 1874, suffering from almost perfect baldness of the head. According to the woman who takes care of the boy, the disease commenced about six months ago, before he had measles. He was in good health at the time. He attended at that time a little school in his neighbourhood, in Blackwall. The disease commenced with small patches over the whole of the head; but he had never been taken for any medical aid before he came to the Metropolitan Free Hospital. There was almost literally not a single hair left, the only exception to this being in a small patch the size of a shilling over the right frontal bone. On some parts of the scalp the skin is smooth, and without any appearance of even "lanugo;" on others there is a little down. The

pigmentum iodi was used on parts of the scalp at a time, and he had ol. menth. ʒij., vin. ferri ʒj., to take thrice daily. The prognosis was very bad; but Dr. Drysdale intended to keep up blistering the scalp with blistering fluid for some months. His idea is that this disease is like tinea tonsurans, caused by a parasite, and he dissents from the view taken of it by E. Wilson and his scholars.

#### *Epilepsy from Tickling.*

Sophia Beal, æt. 22, seven years ago was tickled by a man beneath the arms, and had a fit in consequence. Has had often two or three fits in the week; is quite insensible; has a peculiar feeling in the leg before the fits come on. She is regular sometimes for two or three months together. Has had more fits (she thinks) since marriage than before. Never been more than three weeks without a fit. They are worse in warm weather. Has had no children.

*Remark.*—It is very notable among the great mass of cases of epilepsy which attend at the Metropolitan Free Hospital in the course of a year how many of them have been brought on by causes similar to that here assigned by the patient. Fright, violent anger, tickling, and great sorrow have in numerous instances served as the antecedents of the first fit.

### CASHEL UNION HOSPITAL.

(Under the care of DR. LAFFAN.)

#### *Bloodless Operating.*

THE invention of the distinguished surgeon of Keil has excited sufficient interest in the profession to invite the publication of occasional notes on its practical working.

The appliance of Esmarch is very simple. It consists of a roll of elastic webbing of sufficient length to bandage any limb to which it may be desired to apply it; and of a hollow elastic tube furnished with catches at the extremities. The webbing is applied evenly and tightly to the limb, and then the elastic ring is wound tightly round it at the outer border of the webbing. The latter is then removed, and the band held in position by an assistant, or fastened with such care as to dispense with any such assistance. The webbing is designed to empty all the superficial vessels of their contents, while the elastic band forbids the entrance of fresh supplies. In this way the part is rendered "bloodless" for the time.

I recently admitted to my wards a patient to whose condition this contrivance seemed specially applicable. It was that of an anæmic old man, who was suffering from epithelioma of the heel of some months' standing. Having determined to operate, I previously applied the apparatus in the way described. The band was maintained in position by my dresser, Mr. James Dwyer, while I proceeded to excise the diseased mass. This was effected easily, and without the loss of a single drop of blood. The clear view that was afforded of the parts by the entire absence of all blood-flow strongly contrasted with what would have obtained under the usual method. The operation completed, some little oozing had to be permitted in order to allow of my seeing the vessels which required to be secured. In this case the amount of blood saved was of the utmost consequence to the patient. No sloughing ensued, although the low state of vitality of the limb, seamed as it happened to be with the cicatrices of old ulcers, was particularly favourable to such a process.

Mr. Bryant has drawn a very apposite distinction between Esmarch's procedure and that of removal of growths, &c., by the *écraseur* or by the galvanic knife by denominating the application of the one "bloodless operating," and that of the other "bloodless operations." The after-oozing on which this distinction has been founded, and which is necessary for the tying of the vessels, is the one imperfection of this appliance. As regards its possible

dangers, surgeons have feared that it would lead to sloughing, or produce thrombic disturbances, and one or two cases of the former have been reported. Now, sloughing has happened where no such appliance was used, and there was, moreover, wanting in the cases reported that fulness of proof necessary to establish the connection of cause and effect between the two; and even allowing the existence of such a connection, one or two instances of sloughing is a very small percentage out of the multitude of cases in which the apparatus has now been used.

The dependence of sloughing on its use and the estimation of the other possible dangers apprehended from it remain yet to be worked out; meanwhile, as an economiser of the vital fluid, Esmarch's procedure promises to be of such value as to merit yet more extensive trials.

## Transactions of Societies.

### DUBLIN OBSTETRICAL SOCIETY.

At the meeting on June 13th, Dr. LOMBE ATTHILL in the chair,

Dr. HENRY KENNEDY read a paper on

#### INCONTINENCE OF URINE IN CHILDREN,

which will be found at page 89.

In the debate which followed the reading of the communication,

Dr. DARBY said he quite agreed with Dr. Kennedy that the disease was mostly confined to boys, and the complaint generally determined at the age of puberty. He knew an instance in which the disease was transmitted through three generations. The treatment recommended by Sir Dominic Corrigan had been most successful, and in every case it remedied the affection in a very short time—in the course of a week in one case, a month in another, two or three months in a third—but in all the cases perfectly successfully. There was one remedy to which Dr. Kennedy had not alluded, and that was the tincture of cantharides. He knew of an instance in which a boy, suffering from the disease, was taking cantharides for the whooping-cough, with which he was also troubled, and he was cured of the incontinence of urine as well as the cough.

Dr. C. F. MOORE mentioned a case in which a lady had been recommended to give her child belladonna in order to keep away scarlatina. In consequence, she gave her son belladonna very largely, and continued it for a considerable time. The result was that the child permanently and entirely lost his sight. Dr. Moore said he thought it well to mention that circumstance because some of their junior members might be under the impression that there was no harm in belladonna.

Dr. CHURCHILL sen. said that the disease was a most obstinate one. In some cases he thought it happened from acidity of the urine. He had seen benefit result from the use of belladonna, although he never gave it in very large doses. He had also seen good effects follow the use of the cold douche before bed-time, but he believed the best treatment was careful watching. He thought there was a remarkable difference between the day and the night. He had taken some trouble to ascertain what time in the night it was that the complaint prevailed—whether it was when the child was in a sound sleep or in that half-sleep which preceded waking, and in some cases he found that it occurred during deep sleep. In others he found that it occurred in a half-sleep, and it was quite clear that in others it had taken place during dreams about passing water. He was not quite sure also whether some of those cases might not occur from want of proper tone in the bladder, which might be remedied by some styptic. He would not be inclined to adopt mechanical pressure. He considered the disease a very difficult one to cure.

Dr. KIDD said that so far as his experience went, he thought that one of the methods alluded to by Dr. Kennedy was most efficacious, and he thought it a most relational method of treating this disease. It was one that he (Dr. Kidd) had in every case that came under his notice recommended and impressed upon the parents, and upon the patients themselves, where the latter were of an impressible age—that was, the importance of educating the bladder during the day-time to retain the water. He believed, so far as his experience went,

that that was the best mode of treatment. Teach the patients to retain water as long during the day as possible: in that way they would accustom the bladder to the retention of the water, and in very many cases he believed they would prevent the irritability of the organ which caused the incontinence. In another point that Dr. Kennedy had alluded to, he (Dr. Kidd) did not so fully agree with him, and that was with reference to abstinence from fluids. He thought if they made children abstain from drinking fluids it rendered the urine more irritating, and, so far as his scanty observation had enabled him to form an opinion, they rather increased the tendency to wet the bed. There was another point to which he desired to refer. Sometimes incontinence was the result of epilepsy. In many cases of epilepsy where fits occurred at night the fact of their having happened was only known by the bed being wet. They all knew that epileptic patients had their fits only during sleep, and if those patients slept in rooms by themselves, it was, in fact, not known where the fits took place, except by the state of the beds. In cases where he had had reason to suspect epilepsy he had found that the patients had wet their beds. In considering the question the connection of the disease under discussion with epilepsy was a point which deserved to be borne in mind. With regard to the treatment of such cases, and as to the best bed for a patient of that kind, he might mention that early in his life he had occasion to watch very closely a case of this sort. The patient was the son of a medical man, and was a very clever athlete. He, however, up to the age of puberty suffered from incontinence of urine, and his father resorted to many devices to keep the bedding in a wholesome condition. Amongst other appliances, india-rubber sheeting was used, and of all the devices that could be imagined, he (the speaker) considered that the worst, because the child would lie all night in a pool of urine, the skin being irritated, and the child constantly getting cold. Similar sheeting with tubes in it to let off the water was in use at Lucan, and the best of that kind was he thought Hooper's square sheet of india-rubber with a tube in the centre which carried off the water into a pan placed under the bed. He was of opinion, however, that by far the best bed for patients suffering from the disease was that made up of pure clean wheat straw. At an asylum in Sligo the dirty patients lay upon stretchers, each composed of a sheet of some peculiar canvas stretched on two poles, covered by blankets folded in the way described by Sir Dominic Corrigan in his "Lectures on Fever." He (Dr. Kidd) was told that that method was even better than straw. He thought the tincture of the muriate of iron deserved more credit than it had received.

Dr. LOMBE ATTHILL (the Chairman) said that there was no doubt that some children wet the bed while in the act of waking, and others did so while in a profound sleep. He had seen that day an exceedingly fine handsome girl of 18 years of age who is affected with incontinence of urine. The remarkable feature in her case was that when on a visit with a friend, and not at home, she never wets the bed unless the visit be prolonged to seven or eight days. The only explanation he could give of that was, that when in strange places her sleep was not so deep as when at home. She now always wets the bed at the menstrual period. He had not the amount of success with Sir Dominic Corrigan's remedy which Dr. Darby had had. Great care must be taken in applying the collodion, and if that were done, and the proper precautions taken, he was not prepared to say that the treatment was fallacious. He was, therefore, not at liberty to condemn it. Some time ago he (Dr. Atthill) saw a boy with the troublesome complaint, and the remarkable circumstance in his case was, that when taken out of bed at night, if the weather were in the least cold, he could not pass one drop of water. When, however, that child was replaced in bed, in fifteen minutes he would pass water. With Dr. Churchill he (Dr. Atthill) thought a cold spine-bath would be of service, and he was also of opinion that straw suited admirably for the beds of patients suffering from this disease.

Dr. T. MORE MADDEN said that in the present number of the *Irish Hospital Gazette* he had published some cases of this disease. In the Children's Hospital a good many cases of the kind had come before them, and as the complaint was not only very common, but also occasionally a very difficult one to cure, he was sure that the society must feel much indebted to Dr. Henry Kennedy for the very valuable and instructive paper he had just read on a subject of such practical interest. The cases of incontinence of urine during sleep, or infantile enuresis,

which had come under his care in that and other institutions for children, in some instances resulted from reflex spinal irritation, or from irritability of the bladder, or from calculus, or from impaired contractility of the sphincter vesicle, or from an abnormally acrid condition of the urine acting on a morbid state of the neck of the bladder, but far more commonly he believed that it was not a disease, but a habit, and therefore preventible, being the result of neglect and carelessness on the part of the nurse in not taking the child up at proper intervals to pass water, and in these cases it obviously required moral and preventive rather than medical treatment. He remembered some years ago hearing a discussion on Sir Dominic Corrigan's excellent paper on this subject, in the course of which Dr. Darby said that in the Loughlinstown Hospital he was able in the great majority of cases to prevent this habit by punishing the nurse who had charge of the patient, and in the course of his own experience he (Dr. More Madden) had found this vicariously applied preventive treatment very effectual in several instances in which the complaint was merely the result of habit or neglect. But when it resulted from any diseased condition, such as he had already referred to, incontinence of urine could only be cured by removing its exciting cause; and they could not be too careful in not allowing, as was too often the case, a child to be punished for what its parents or nurse considered a mere dirty habit, but which might be really the result of disease. Amongst the cases of enuresis at present under Dr. More Madden's care was one illustrating the difficulty of curing this disease in some instances, and the necessity of studying its causes in each case. In the case he referred to the patient, who had nearly arrived at adult life, was still suffering from this most unpleasant affection, by which his life was rendered perfectly wretched, and having been repeatedly punished for it when a schoolboy, had been since ashamed to apply for medical treatment, under which there seemed every prospect of his being speedily cured. Speaking of the medical treatment, he entirely agreed with Dr. Henry Kennedy that blistering the sacrum was one of the most effectual remedies in many of these cases, and he believed that one cause of its efficacy was that the patient was thereby prevented from lying on his back, and thus the irritation of the neck of the bladder by the accumulated urine was to some extent prevented. With regard to the mechanical treatment of enuresis by pressure on the urethra and dorsum penis, as recommended by Trousseau and other French authorities, or by the simpler and older plan of tying a tape or string tightly around the penis of a child thus affected, which he had seen adopted by some nurses in this country, he (Dr. More Madden) disapproved of it, and in cases of older children thought this practice most objectionable on obvious grounds, being not only degrading to the nurse who performed the operation of thus ligaturing the penis, but likely also to be injurious to the moral habits of the child. A plan of treatment in obstinate cases of enuresis which resisted all other remedies had been recommended in that hall some years ago by one to whom they all justly looked up with respect and esteem as *facile princeps* amongst them. He alluded to the use of collodion as suggested in these cases by Sir Dominic Corrigan, and though the value of that treatment was unquestionable in cases of incontinence of urine in very young children, and had been borne testimony to by other speakers that night, yet, for his own part, he would fear to extend even that form of mechanical treatment to those older children who were sometimes subject to this disease. The remedies which he had seen most benefit from in the cases of incontinence of urine were tonics, especially sea-bathing and iron. The tincture of perchloride of iron and belladonna in minute doses were the medicines he had most faith in. In the Children's Hospital he had treated a number of cases by means of those two remedies, and although they acted very differently they could be combined with great advantage. If they blistered the sacrum, used tincture of iron, and tincture of belladonna, stopped giving meat, and no salt in the food, they would have few incurable cases of incontinence of urine.

Dr. HENRY KENNEDY felt pleased at the discussion that his paper had caused. He did not know that he had anything to which specially to reply. So far as regarded the observations of Dr. Churchill, he (Dr. Kennedy) had never tested the urine as to its acidity. The fact of the child not being able to pass water when taken out of bed in cold weather—mentioned by Dr. Atthill—was most important.

The Society then adjourned until next session.

## GENERAL COUNCIL OF MEDICAL EDUCATION AND REGISTRATION.

SESSION 1874.

THE following is the correspondence postponed from our last issue and mentioned in the Report :—

Apothecaries' Hall, July 19th, 1873.

My Lord,—The Society of Apothecaries has desired me to communicate with you on the subject of a Bill introduced by the University of London into the House of Commons for removing certain disqualifications which prevented it from uniting with any two or more bodies in a conjoint examining board under the Medical Acts.

This Bill was brought in on the 7th instant, was read a second time on the 11th, passed committee without amendment on the 15th, and was read a third time and passed on the 16th.

No doubt appears to be entertained of its being passed by the House of Lords this session.

Under these circumstances, the Society desires me respectfully to draw your lordship's attention to the correspondence which passed between the Society and the Medical Department of the Privy Council in 1872, and during the present year, and particularly to the letters addressed to the Society by the direction of your lordship on the 14th June, 1872, and the 24th March, 1873.

In deference to the suggestion contained in the letter of the 14th June, 1872, the Society did not proceed with the Bill which it was about to introduce that session.

Acting in the same spirit, the Society, as your lordship will see on referring to the correspondence of 1873, before taking any further steps itself, consulted the Government as to what its own intentions were, and received in reply the communication from the Privy Council of the 24th March, 1873. Not only did the Society attach the greatest importance to this communication (which was received at the time of the session of the General Medical Council and laid before that body), but it was regarded by the representatives of the whole medical profession as indicating the policy of the Government on the subject of medical reform.

The Society admits that this letter did not go beyond an expression of what the Government itself was prepared to do; but, undoubtedly, an inference was drawn from it that the Government would not approve any measure inconsistent with its own policy.

It would appear from the ease with which the Bill introduced by the University of London is being passed, that the inference drawn by the Society was incorrect.

I am desired under these circumstances respectfully to intimate to your lordship that the Society will introduce early next year the Bill which it had proposed to introduce last session, but which it refrained from doing in deference to your lordship's suggestion.

The Society further desires me to express the hope that in promoting this measure it will receive from the Government the same facilities as have been accorded to the University of London during the progress of their Bill.

I have the honour to be, my Lord,

Your Lordship's very obedient servant,

(Signed) JAMES RICHARD UPTON,

Clerk of the Society of Apothecaries.

The Lord President of the Privy Council.

Medical Department of the Privy Council Office,  
July 31st, 1873.

SIR,—I am directed by the Lord President to acknowledge the receipt of your letter of the 19th instant, informing his lordship that the Society of Apothecaries intends early next year to introduce the Bill which it had proposed to introduce last session, and expressing the hope that in promoting this measure the Society will receive from the Government the same facilities as have been accorded to the University of London during the passing of their Bill.

In reply, his lordship directs me to inform you that, if such a Bill were introduced by the Society next session, no general measure of medical reform being then before Parliament, the Government would take the same course with regard to it as they have taken with regard to the University of London Bill of this session.

I am, Sir, your obedient servant,

(Signed) JOHN SIMON.

The Clerk to the Society of Apothecaries.

Apothecaries' Hall, London, E.C.,  
5th June, 1874.

My dear Sir,—The Society of Apothecaries has given the fullest consideration to the views expressed on the part of the Branch Medical Council as to the Society in their present Bill, obtaining a similar power to that obtained by the University of London last year, namely, the power to make examination by the Conjoint Board an indispensable condition of being qualified to be registered as an apothecary under the Act of 1858.

I may state that the personal feelings of the members of the Society would probably be entirely in accordance with the views entertained by the Branch Medical Council on this point.

The Society as a body are, however, for the following reasons, in a position of considerable difficulty.

Before any intimation of the views of the Branch Medical Council had been made to the Society they had been obliged to deal with an amendment of a serious nature, proposed by Mr. Stansfeld, with the view of protecting the alleged rights of women; and the Society had succeeded in coming to a satisfactory arrangement with Mr. Stansfeld in reference to that amendment.

I will presently point out the difference which exists between the cases of the University of London and the Society of Apothecaries.

But I will first explain that if the Society were to attempt now to introduce a proviso in their Bill similar to that which exists in the University of London Act it would be regarded by Mr. Stansfeld as an attempt to take away with one hand what had been conceded by the other, and would be resisted accordingly.

I should add that Sir John Lubbock concurs in the opinion which I am now expressing.

The Society is, therefore, unwilling (whatever the personal feelings of the members may be) to run the risk of opposition to their Bill by an attempt to introduce a proviso, which does not appear to be an essential feature in their Bill.

The following are the distinctions which exist between the position of our Society and the University of London :—

(1.) The fact of no woman having obtained a degree or licence from that body, would have rendered it difficult for that sex to obtain a *locus standi* before Parliament, so as to insist on the preservation of rights, the existence of which could not be even alleged.

(2.) As regards the two bodies in question, a comparison of the number of persons likely to be affected on the one hand in the case of the University of London, and on the other hand, in the case of our Society, will make it clear, that what could and did pass *sub silentio* in the former instance might rouse strong opposition in the latter.

It has (I understand) been urged that the two Colleges have pledged themselves, on the completion of the Conjoint Board, to abstain from conducting separate examinations.

That pledge the Society is equally ready to give if they become part of the Conjoint Board; a pledge in fact that, having joined, they will not (except under compulsion of a *mandamus*) admit anyone to a separate examination. The two Colleges themselves have at present done nothing more.

The Society, therefore, for the reasons I have mentioned, are unwilling to imperil their Bill in order to secure what does not appear to them an essential feature of it.

I take this opportunity of laying the Bill before you in the form in which it is proposed that it should go through committee, and trust that it may appear in some respects considerably improved by the alterations which have been made, principally at the suggestion of the Branch Council.

I must, for obvious reasons, ask you to regard this letter as a private communication, and as not intended for publication.

Yours very faithfully,

(Signed) WILLIAM DICKINSON, Master.

To Dr. Paget, President of the Medical Council.

At a meeting of the Governors of St. Bartholomew's Hospital, on the 22nd inst., under the presidency of His Royal Highness the Prince of Wales, Alderman Sir Sidney Waterlow, M.P., was elected treasurer of the hospital in succession to Mr. Foster White, whose declining health has compelled him to retire from the post.



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**The Medical Press and Circular.**

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"SALUS POPULI SUPREMA LEX."

WEDNESDAY, JULY 29, 1874.

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**PUBLIC HEALTH.**

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THE Medical Officer of the Local Government Board has begun a new series of his reports, of which the first is before us. We cannot but feel satisfied at this, and we hope the trusty adviser of the Government will take care that none of this series become scarce, as some of his former reports have unfortunately not been easy to obtain.

The present report is brief, but Mr. Simon takes the opportunity of expressing his views as to the future work of his department, and it is gratifying to find that he believes the transition period incident to recent legislation is now passed, and that the work will now progress with regularity.

The country has been fortunate in having so able an administrator at the head of the Health Department during these changes, and we sincerely hope Mr. Simon may long be spared to carry on the important work in which he has so long been rendering priceless services to his country. We may return to his report on another occasion, but to-day we content ourselves with stating that the story of our escape from cholera is officially told by Mr. Simon, and demonstrates that but for the efficiency of his department we should probably have suffered a severe epidemic. This alone is sufficient to entitle the Local Government Board to credit for valuable work, and is of a kind the public may appreciate.

Our readers were informed of these circumstances at the time, so that we may as well devote the remainder of this article to the views entertained respecting the diffusion and prevention of cholera as expressed in district papers submitted to the Board by Mr. Simon, who states that both the Russian and English writers have a common basis of opinion as to cholera. They have had no occasion to touch the still disputed question of the process or processes by which cholera maintains and spreads itself in its native climate of India; on the other hand, as regards the means by which it is spread beyond those limits (ordinary and extraordinary) of its endemic prevalence, educated medical opinions vary comparatively little. No competent person pretends that the power of human intercourse to give pandemic extension to cholera is irre-

spective of most important qualifications in regard of both place and time; but that, subject to these qualifications, human intercourse is the essential agent of such extension is the conclusion which almost all modern opinions now recognise, and in which Russian and English opinion are in full accord. He proceeds to point out that the facts represent the choleraic infection as becoming for European Russia, and probably tending to become for all Europe an influence scarcely to be called alien and rare, but at least comparatively naturalised and habitual, gradually assimilating itself in this respect to the familiar European bowel-infection of typhoid fever. "And," Mr. Simon adds, "the importance of the facts in this point of view seems to me to attach to them equally, whether they be explained on one supposition of their origin or the other—whether they arise, as Mr. Radcliffe's former argument would suggest, by means of repeated introductions of new infection from without, or, as Dr. Pelikan maintains, by the long persistence in vigour of each one infection that is introduced. On either supposition we have to remember, with regard to the future, the increasing facilities for infection from India which are inseparable from the developments of traffic." The possibility of a new and most deadly contagium, tending by degrees to become current in Western Europe, can hardly be contemplated without at first a feeling of dismay. As to our defence from cholera, he points out that England has abandoned quarantine as futile, and that when cholera is current on the Continent of Europe we must accept, as practically not to be avoided, innumerable chances, which, indeed, make certainties, that the same contagium will freely enter our own country. "It is," he says, "on that basis that the true defences of England against cholera have to be planned; defences not peculiar to the coast line of England, but, in principle, equally to be aimed at in each sanitary district throughout the country; defences which (as explained in the memorandum above referred to) consist essentially in those common hygienic precautions which local sanitary authorities are responsible for providing or enforcing, and, above all, in extreme vigilance in regard of the local supplies of water and the local prevention of filth. Thus, in truth, the increasing influence of cholera on the Continent of Europe is chiefly to be regarded in this country as an additional appeal to our 1,500 local authorities to move swiftly and effectively in duties which already, on other grounds, are urgently incumbent on them." In proportion as common sanitary improvement takes from typhoid fever its present deplorable and disgraceful power of spreading among our population, in such proportion, Mr. Simon believes, will England have better security against cholera than any imaginable system of quarantine could have given her, and will be able to receive with comparative impunity whatever importations of cholera-contagium may thenceforth accrue to her from abroad.

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**Notes on Current Topics.**

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**The Navy Report.**

The Navy Report for 1872 has been issued. The total numerical force of the Navy in 1872 was 46,830. Of



these, one-half were between the ages of 15 and 25, one-third were between 25 and 35, one-eighth between 35 and 45, and rather more than 3 per cent. above 45. The average number of men sick daily was 2,134, or in the ratio of 459 per 10,000 of force, being an increase compared with the preceding year equal to one per 10,000. There were 54,697 cases of disease and injury under treatment during the year, being a decrease compared with the previous year to the extent of 40 per 1,000. The total number of days' sickness gives an average of 16·7 days to each man of the force. It is a singular proof of the regularity of natural law that this is precisely the same average as that of the previous year. The total number invalided was 1,609, being in the ratio of 343 per 10,000 of force, or an increase of 23 per 10,000 in the year. The deaths were 385, being in the ratio of 82 per 10,000—a decrease of 3 per 10,000 compared with the previous year.

Out of every 100 cases of sickness 23·58 were due to diseases of the cellular tissue and cutaneous system, 21·31 to wounds and injuries, 14·86 to diseases of the digestive system, and 10·50 to diseases of the respiratory system. Of every 100 persons invalided 15·72 were for diseases of the nervous system and organs of the special senses; 13·30 for diseases of the circulatory system; and 11·80 for diseases of the digestive system. Phthisis was the cause of invaliding in 12·36 per cent. of the total number; rheumatism, 8·57; and unclassified diseases, 6·83. Wounds and injuries only contributed 7·14 per cent. to the total invaliding, but they account for nearly one-third of the deaths. Phthisis contributed 13·76 per cent. to the total number of deaths, diseases of the circulatory and respiratory systems each nearly 10 per cent., and diseases of the digestive system 7·79 per cent. Eruptive fevers gave a percentage of 10·38 on the entire mortality.

#### New Operation for Exostosis.

WE hear that Mr. Maunder has recently practised subcutaneous surgery in the true and absolute sense of the term. A female about 15 years of age, the subject of a pedunculated exostosis attached to the lower end of the femur, was unable to use her limb by reason of this outgrowth. Mr. Maunder determined to try to fracture this subcutaneously, and having seized the tumour with a broad pair of pliers, succeeded in doing so with comparative ease. It remains to be seen what will become of this detached portion of bone.

#### Mortality and the Seasons.

IN a paper lately read at the anniversary meeting of the Scottish Meteorological Society, and summarised in *Nature*, Dr. Mitchell and Mr. A. Buchan calculated the weekly average death-rate for the past thirty years for thirty-one diseases, together with the averages of "temperature, moisture, rain," &c. The influence of the varying climates characterised as "cold," "cold and dry," "warm and dry," "warm and moist," "cold and moist"—is clearly pointed out. The weekly mortality "from all causes and at all ages" shows a large excess above the average from the middle of November to the middle of April. The minimum is reached at the end of May. Then it slowly rises, and in

the third week of July, in which we now are, it "shoots suddenly up almost to the maximum of the year, at which it remains till the second week of August," when it falls rapidly to a secondary minimum in October. The summer excess in the death-rate, abrupt in its rise and fall, is "wholly due to one section of the population, viz., infants under five years of age, none of the curves for the other ages showing an excess in the death-rate from all causes." The period of the year least marked by the occurrence of the maximum mortality from any disease is the warm dry weather from the middle of May to the end of June. The general rule is thus roughly stated:—

CHARACTER OF WEATHER.	MAXIMUM MORTALITY.
Cold.....	Bronchitis, pneumonia, asthma, &c.
Cold and dry.....	Brain disease, convulsions, whooping-cough.
Warm and dry.....	Suicides, small-pox.
Warm and moist.....	Diarrhoea, dysentery, cholera.
Cold and moist.....	Rheumatism, heart-disease, diphtheria, scarlatina, measles, croup.

Deaths from cancer and liver disease show no distinct relation to the influence of the weather.

#### Sir William Fergusson.

A REPLICA of Sir William's portrait has been presented by a deputation of the subscribers to the Royal College of Surgeons of Edinburgh. Dr. Simpson, President of the College, received the deputation. Professor Douglas MacLagan, representing the subscribers, presented the portrait, which was acknowledged by the President. It will be placed in the portrait gallery of the College.

#### Anderson's University, Glasgow.

ON July 10th a large company of Andersonian students held a dinner to celebrate the termination of the summer session with Dr. Eben. Watson in the chair, when the students of the practical physiology class, in connection with the Glasgow Royal Infirmary and Andersonian University, presented Dr. Watson with an address of thanks for the services he had rendered them as Professor of Physiology.

#### Dr. John H. Webster.

AT a Court of Governors of the Northampton General Infirmary, specially convened for the election of a Physician, it was resolved—"That this Court cannot separate without cordially recognising and gratefully acknowledging the valuable services of Dr. Webster during the nineteen years that he held the office of Physician to this Institution."

#### The Relations of Master and Servant in the Profession.

THE Master of the Rolls gave a decision last week which is of considerable importance to medical practitioners and their assistants. The bill in this case—*Gravely v. Barnard*—was filed by a surgeon, and asked for an injunction restraining the defendant, who was the paid assistant of the plaintiff, from practising as a surgeon and general practitioner within certain limits. The instrument on which the plaintiff relied was a bond into which the defendant had entered with him not to interfere with the plaintiff's practice or take away his patients. The defence was that the bond was worthless to bind the defendant, there being no valuable consideration expressed

on the face of it. The Master of the Rolls, however, held that it was not for him to decide whether the consideration was or was not sufficient, so long as there appeared to be some consideration on the face of the instrument, or so long as one might be fairly inferred from the surrounding circumstances. Here the bond recited that the plaintiff and defendant had agreed to enter into the relation of employer and assistant "for so long a time as should be agreed on between them." The meaning of that was of course that either party could terminate the connection at a moment's notice, and the plaintiff, finding that his assistant, who had hitherto been unqualified to practise, was about to pass an examination which would confer that qualification upon him, offered to continue him in his employment on the same terms as before on condition that he would bind himself not to practise within certain limits. That was a valuable consideration in the eye of the law, and if the parties thought it a sufficient one, it was not for the Court to interfere, although there really was nothing to prevent the plaintiff from discharging his assistant the minute after he had signed the bond. He (Sir G. Jessel) could not help himself, therefore, and must grant the injunction prayed for, although if he allowed his feelings to override the law, he should certainly have refused it.

### Failure of the Conjoint Scheme for England.

WE have always had our fears of a hitch, and although optimists still express confidence in the result, it appears to us that the following report of a Committee on the Bye-laws of one of the bodies is most serious. This report was presented to the Council of the Royal College of Surgeons, and adopted at the special meeting held on Friday, the 17th inst. :—

#### "Report of the Committee on the Bye-laws."

"The Committee on the Bye-laws, having in view the legal difficulties which have arisen in the carrying into effect the Conjoint Scheme for an Examining Board in England, met this day to consider the mode of overcoming these difficulties, the legal advisers of the College being in attendance at the request of the Committee, in order to facilitate their deliberations. The Committee, after long and careful consideration of the question, adopted the following recommendation as their report, to be laid before the Council at the extraordinary meeting on the 17th inst., viz. :—

"The Committee recommend to the Council that a communication be addressed to the Committee of Reference, with a request that it may be made known to the several medical authorities co-operating for a Conjoint Examination in England, that the Council of this College are advised that, under the restrictions of its charters, the College cannot legally take part in the proposed Scheme for a Conjoint Examination, unless for that examination the members of the Court of Examiners appointed by the Council of this College, or so many of them as may be required for the examination in Surgery, are *ex officio* the examiners in Surgery."

"JOHN HILTON, Chairman.

"July 14th, 1874."

### "A Pressing Subject."

IN the *Pictorial World* of Saturday last there is an admirable illustration of Sir James Paget delivering a lecture in the theatre of St. Bartholomew's Hospital on "Maladies produced by Boots and Shoes," our contemporary

not inaptly styling the picture "A Lecture on a Pressing Subject." The likeness of the eminent lecturer is excellent, and there are many faces amongst his audience we recognise without much difficulty. Sir James Paget is represented holding the cast of a foot in one hand, whilst upon the tables in front and at the side of him are casts of various malformations, with the fashionable boots which cause them. Altogether the effect is a very happy one, and our illustrated contemporary must be congratulated upon the production of a picture so full of life-like interest. The other portions of the same journal are equally excellent, and with such a formidable rival our old friends *The Illustrated London News* and *The Graphic* will do well to look after their laurels. We may add, for the information of those who desire to read the lecture "On a Pressing Subject," that it has been in course of publication during the last three numbers in our excellent contemporary *The Students' Journal*.

### The late Dr. Gray of Broadmoor Asylum.

THE force of a good example is beautifully illustrated in a passage in the Chaplain's Report, appended to the Medical Report of the Criminal Lunatic Asylum at Broadmoor. We extract the passage to which we refer :—

"Dr. Gray, the Assistant Medical Officer, having died in the asylum on the 27th February, 1873, the Office for the Burial of the Dead was said in the chapel on the day of the funeral, and the service was attended both by many officers and patients.

"I desire, Sir, to place upon record an expression of the respect which I entertained for the late Dr. Gray, and of the pain caused by his death to myself, in common with all classes of persons connected with this asylum. A gentleness of character, not without necessary firmness, had produced a strong feeling of regard for him among the whole body of the patients; and when his death was known among them, many requested to see the body. It was thought well to accede to this request; and the coffin was placed in the chapel uncovered, while all who wished to do so were permitted to pass by it in order. Some who availed themselves of the permission were among the very worst characters in this asylum; and I can recall to my recollection no incident during the whole of my long intercourse with criminals more remarkable than the sight of men indurated in crime, and with passions often ungovernable under the excitement of madness, standing to gaze in silence for the last time upon the lifeless countenance of one whom they had respected, with a sympathy which could not be concealed.

"In the discharge of my duties I have continued to receive the most cordial support from the superintendent and from the other officers of the asylum."

### The English Conjoint Examination.

THE *British Medical Journal* says: "We believe the difficulty may be considered to be satisfactorily solved. It is probable that students registered on and after the 1st of October next will receive notice that they will be required to pass under the Scheme of the Conjoint Examining Board."

THE Government of India have sanctioned a proposal for the establishment of a medical school at Rajputana, to qualify a number of young Rajputs in surgery and medicine, so as to enable them to afford medical aid to their countrymen, who are now beginning to appreciate the value and importance of European medical treatment.

### The Irish Pharmacy Question.

OUR readers are aware that the Committee of the House of Commons have closed their sittings. Their report is not yet presented, and we have, therefore, no positive information as to their recommendation. We quote, however, a statement from the London correspondence of the *Dublin Freeman's Journal*, which our readers will accept *quantum valeat*.

"Mr. Errington's Apothecaries' Licences Bill Committee have to-day decided upon their report, of which I am able to give you a *résumé*. Admitting at the outset that a Pharmaceutical Society for Ireland is much required, and that the country possesses ample material for the constitution of such a body, the Committee recommend that the Government should introduce a bill (in lieu of Mr. Errington's original bill) empowering the Lord Lieutenant in Council to appoint, in the first instance, a certain number of foundation members, who shall form the nucleus of and draw up rules as to qualifications, examinations, &c., for an Irish Pharmaceutical Society. Such society, when constituted, shall be a perfectly independent body, on a footing equal to the English society, possessing co-ordinate and reciprocal powers with the latter body—that is to say, that while itself independent, members of the English society may practise in Ireland, and members of the Irish body may practise with equal rights in England and Scotland. The new society will be formed mainly on the basis of the English body, and members of the governing council will be elected for three years. With regard to dispensing chemists, the Conservative members of the Committee carried a resolution recommending that in future licences should be required for the compounding and sale of poisons, but by the action of the Liberals a suggestion is made, by which those now compounding and dispensing poisons need not take out licences, but that this system shall apply to such chemists as may hereafter wish to dispense such articles. When the report has been presented, you will be able to publish its *ipsissima verba*, but it may be added that the bill recommended by the Committee will not be introduced until next session."

Apropos of the forthcoming report we note the following statement, made by Mr. Reuben Bolton, of Belfast, the Secretary of the Association of Licentiate Apothecaries:—

"I wish to mention that two gentlemen representing the Licentiate Apothecaries in Ireland, one from Belfast, the other from Cork, presented themselves for examination before the Committee, but were informed that their evidence was not considered necessary.

"I believe I express the feeling of those whom they represented when I characterise the refusal of their testimony as most unfair to the class whose prospects would be most materially affected by a change in the law respecting pharmacy in this country."

We gave expression a couple of weeks since to the apprehension that this most important matter would be dealt with in a flurried way, and on the authority of very insufficient evidence, and so it has turned out. The Apothecaries' Hall has had its say, the Druggists have had theirs, and the College of Physicians, through Sir Dominic Corrigan, has had its; but the practitioners in the Irish provincial towns are entirely unheard, except so far as Mr. Macnamara can be said to be entitled to express their views; and the Licentiate Apothecaries have not been allowed to open their mouths at all. Indeed, so far as we know of the evidence, the general feeling of the medical profession and the dispensers throughout Ireland is as yet unknown to the Committee. We anticipate as a possibility that the whole question may have to be reopened in the next session of Parliament when the Bill of the Committee comes to be introduced, and the battle perhaps again fought out; meanwhile, the Association of Chemists and Druggists of Ireland, after many months'

flirtation with the Apothecaries' Hall, have almost approved the following programme:—

"That this Society approves of the extension of the English Pharmacy Act to Ireland as a fair and satisfactory settlement of the pharmacy question, with these provisos:—

"1. That all at present engaged at the business, whether on their own account or not, be entitled to register themselves as chemists and druggists.

"2. That all at present engaged at the business, whether on their own account or not, be allowed to compound prescriptions and become members of the Pharmaceutical Society by passing the modified examination.

"3. That a branch of the Society be established in Dublin similar to the one in Scotland."

### The Forthcoming Meeting of the British Medical Association at Norwich.

THE arrangements for this assembly are fully announced in the last issue of the *Journal of the Association*. It will commence on the 11th of August, the President being Sir William Fergusson, and the President elect Edward Copeman, M.D., Senior Physician to the Norfolk and Norwich Hospital.

An Address in Medicine will be given by J. Russell Reynolds, M.D., F.R.S.; in Surgery, by W. Cadge, Esq., Surgeon to the Norwich Hospital; and in Obstetric Medicine, by James Matthews Duncan, M.D., F.R.S. Edin.

A *soirée* will be given in St. Andrew's Hall on Wednesday evening, August 12th, and will consist of music, scientific exhibitions, paintings of the Norfolk and Suffolk School of Artists, and refreshments.

#### EXCURSIONS.

On Friday afternoon, parties of ladies and gentlemen, accompanied by gentlemen able to give information, will be formed to visit—

1. The Cathedral (where a paper will be read), and other places of antiquarian interest near at hand.

2. The Waterworks, Filtering Beds, Reservoirs; the Sewerage Works and Farm; Bishop Hall's Palace (now the Dolphin Inn); also, on the route of this excursion, will be seen the remains of the City Walls at St. Benedict's Gates, Chapel Field, and Ber Street Gates.

3. Cossey Hall and Park.

Later on in the afternoon, J. J. Colman, Esq., M.P., kindly invites the members of the Association to a *déjeuner*.—All intending to accept Mr. Colman's invitation, whether members of the Association or ladies accompanying them, are particularly requested to notify this fact as early as possible to Mr. W. Barnsby Francis, St. Clement's, Norwich.

On Saturday there will be excursions for members of the Association and ladies—

1. To Wells, Holkham Hall and Park, the Danish Camp at Warham, Binham Priory, and Walsingham Abbey.

2. To Swaffham, Castleacre Priory, Houghton Hall, and Raynham Hall.

3. To Aylsham Church, Blickling Hall, Felbrig Park, Beeston Hills, and Cromer, returning by Gunton Park.—The Marchioness of Lothain kindly invites members who join this excursion to a luncheon at Blickling Hall.

4. To Fulton Road, joining the next party.

5. To Herringfleet and Somerleyton Hall.

As special arrangements have to be made for carriages to convey the parties joining these excursions, the numbers must be limited, and tickets cannot be issued after Wednesday, August 12th.

6. There will be also a Yacht Excursion, which will be limited to the accommodation afforded by the yachts at the disposal of the Excursion Committee.

Members wishing to join any of these excursions are desired to communicate early with the Honorary Secretary of the Excursion Committee, Mr. W. Barnsby Francis, St. Clement's, Norwich.

The following places of interest in the neighbourhood of

Norwich may be conveniently visited by members and ladies during the meeting: Yarmouth; Lowestoft; Cossey Hall; Caistor, by Norwich; Thetford; Whymondham's Geological Stations at Bramerton, Thorpe, Horstead; Botanical Stations at Horsford and St. Faith's. Hunstanton and Sandringham can also be visited from Norwich in a day.

In Norwich, amongst the objects of most interest are the Cathedral, which is open daily; forty-two churches, those most worthy of a visit being St. Peter's, Mancroft; St. Giles's St. Stephen's; St. Johns, Maddermarket; St. Gregory's; St. Michael at Plea; St. Michael at Castany; St. James's; and St. Peter-per-Mountergate; &c. Amongst the ancient buildings, are St. Andrew's Hall, the Guildhall, the Castle (now the County Gaol), St. Helen's Hospital, the old Bride-well (now a tobacco manufactory), Bishop Hall's Palace (now the Dolphin Inn); the Old Well in St. Laurence, recently restored; and the remains of the City Walls, standing in various places. Mousehold Heath is a short distance from the city.

During the meeting, the following places will be open to members of the Association on presenting their cards of membership: The Public Library; the Literary Institutions; the Free Library; the Norfolk and Norwich Hospitals; the Eye Infirmary; the Children's Infirmary; the Bethel (a charitable institution for lunatics); St. Helen's Hospital (a charitable institution for decayed tradesmen); the School for the Indigent Blind; the Norfolk and Norwich Museum; the Guildhall, with the City Plate; the Castle (now the County Gaol); the City Gaol; the County Asylum; the Waterworks; the Sewerage Works and Farm; J. J. Colman's Works; Bolingbroke's, Claburn's, and Willett's; the Yarn, Power-loom, and other factories; Barnard and Bishop's Ironworks, and many others.

A DEATH from chloroform occurred a few days since in the Leeds Infirmary. The man was under the influence of drink.

HER MAJESTY'S GOVERNMENT has decided that no further recommendations shall be made as to the appointment of analysts until the subject has been considered by Parliament.

SMALL-POX has broken out in Newmarket and district, and is rapidly increasing. The local authorities have applied to the Jockey Club for the use of the Grand Stand as an hospital.

THE Royal Naval and Marine Hospital, at Chatham, was officially inspected last week by Sir Alexander Armstrong, K.C.B., Director-General Navy Medical Department, who subsequently visited the dockyard.

AN International Pharmaceutical Congress will be opened at St. Petersburg on the 13th of next month. One of the principal questions for discussion will be the formation of an International Pharmacopoeia.

WE very much regret to observe that the begging petition put forth by Dr. Maunsell, of Dublin, for public alms for the widows of Irish Poor-law medical officers has been sent by him to her Majesty, and remitted to the Irish Government for consideration. Thus the Poor-law medical officers of Ireland—gentlemen who, we believe, respect their own position and that of their wives, and who are, at least, independent of public charity and incapable of suing for it in the whining tone of this petition—are placed openly before the public and the authorities as destitute public servants. On their behalf we earnestly repudiate and protest against their being so represented by

a few wire-pullers. The Irish Poor-law Medical Service is without doubt an ill-paid and hard-worked drudgery, and great sacrifices must be made and are daily made by its members to provide for those dependent on them; but we do not forget that they are none the less members of a gentleman's profession, and their wives usually ladies by birth and education, and we are certain that but few will be found amongst them who would accept the pittance which might be obtained by a degrading mendicancy.

In this matter at least Dr. Maunsell has entirely misunderstood the feelings of the Irish Poor-law medical officers, and has placed them in a very disreputable position by his misrepresentation of their sentiments.

WE learn by telegram that in some places in Prussian Silesia cholera is said to have broken out. The Austrian Minister of Commerce has required managers of railways communicating with Prussian Silesia to take precautionary measures. In Austria and Hungary no cholera has as yet appeared this year.

THE Infanticide Bill, which has passed the second reading of both Houses of the Legislature, enables a jury to convict a mother of causing the death of her infant under a minor clause, and of limiting the punishment from two years to ten, instead of, as now, under the capital offence of murder. To our minds this is very nearly offering a premium to child murder. The murderess is to be relieved of this dreadful sounding word and to be charged with felony.

SOME three weeks ago a mad dog made its appearance at Wigginton, near Tamworth, and bit two sheep belonging to Mr. Hodgkinson, farmer. The sheep have since been kept penned up by their owner in order to see what effect their injuries would have upon them. On Saturday week one of them showed symptoms of rabies, which gradually increased in intensity until Tuesday, when the animal's suffering became so pitiful that it was killed. No similar symptoms have as yet appeared in the other sheep.

INSPECTOR-GENERAL JOHN DAVIDSON, C.B., M.D., has been appointed Honorary Physician to Her Majesty, *vice* Sir Alexander Nisbet, deceased. Dr. Davidson is L.R.C.S. Edin. (1838), M.D. St. Andrew's (1845), and M.R.C.P. Lond. (1860). During the Russian war he was attached to the naval hospital at Therapeia, in Turkey.

Staff-Surgeon George J. Willes, M.D., from H.M.S. *Agincourt* to H.M.S. *President*, *vice* Watson (period of service expired).

Staff-Surgeon Fysher Negus, from half-pay, to H.M.S. *Agincourt*, *vice* Willes.

Surgeons George Bolster, William Inman, M.D., M. D. Hurlstone, and H. Macdonnell, to be Staff-Surgeons (second class) in H.M. Fleet.

Deputy Inspector-General William Macleod, M.D., has been re-appointed to the Royal Naval Hospital, Yarmouth.

## Literature.

### SYPHILIS OF THE NERVOUS SYSTEM. (a)

THIS is a most useful work, and another proof, if any were wanted, that there are several chapters to be added to the description of that strange disease syphilis, which has been called by some the plague of the 19th century.

Patients, says the author, frequently present themselves for advice who are suffering from some form of nervous disease dependent on syphilis, who have already received all kinds of treatment except one directed to the basis of their disorder, and who recover, or are more or less benefited when specific remedies are adopted. No doubt in some cases the amelioration is only partial; a disorganisation of nerve substance has taken place which is irreparable as far as this has gone, but further extension is prevented.

We must not expect always, says Dr. Buzzard, to find in the patient any definite sign which would necessarily prove the syphilitic nature of the malady. The peculiar grouping of the symptoms is often sufficient to point to the diagnosis. The age of the patient is of much importance in the diagnosis of syphilis. Dr. Buzzard observes that he has little hesitation in stating his conviction that, putting aside cases of injury, hemiplegia, and paraplegia occurring in a person between 20 and 45, which is not associated with albuminuria or embolism, is in nineteen cases out of twenty the result of syphilis. He has been in the habit of prescribing iodide of potassium very early in every case of palsy which did not from its symptoms offer a ready solution of the cause of the disease. Many syphilitic cases are unaffected by moderate quantities of iodide of potassium, some requiring the use of mercury.

Among cases of epileptic character he has met with there have been several in which, after bromide of potassium had failed to be of service, the iodide was successful. These were probably of syphilitic causation, as he has tried the iodide in manifestly non-syphilitic cases without good effect.

If pain in the head be associated with syphilitic attacks it generally precedes the outbreak in syphilitic convulsions, and is often localised in a spot, and has perhaps been felt for months previously. In simple epilepsy pain follows the fit, and is diffused over the forehead; in simple epilepsy the attacks most frequently commence at puberty; in the syphilitic, generally when the patient is past 20 or 25. In syphilis very often the attacks are without loss of consciousness, or the tongue may be twisted to the side and the cheek spasmodically drawn up. In syphilitic epilepsy there is frequently a rapid recurrence of seizures, with intervals of more or less considerable coma, and often loss of power in the limbs on one side following the attacks, and lasting for a short time only. Double optic neuritis, with atrophy of the optic disc, with unilateral convulsions, most frequently in the hand, imply syphilis of the brain.

In hemiplegia from syphilis the patient rarely loses consciousness; but this is not peculiar to syphilis. Gummata may exist in the brain or in the skull, vessels, or meninges. If in bone there has probably been pain felt for some time previously. When the corpora striata and optic thalami are affected the hemiplegia is most well marked; when sudden, it can hardly depend on exostosis; or when intermitting and accompanied by aphasia.

In cases of paraplegia there is not the same precision attained that has been attained in hemiplegia dependent on syphilis; still, syphilitic inflammation and gummy deposits occur in the cord. Paralysis of both upper and lower extremities may occur from cerebral meningitis or tumours in the middle line of the brain, as from a lesion within the spinal column; but generally

speaking, when in the brain such lesion generally produces mental disturbance or paralysis of some cranial nerve. The sensation of a hoop around the body points most significantly to disease of the cord. Twenty, thirty, or more years may have elapsed from the first sore ere nerve disease is set up.

Vertigo is a frequent symptom in syphilitic disease of the nervous system, and is often continual, yielding rapidly to specific remedies.

Hemiplegia with palsy of one or more cranial nerves, especially the third, fourth, fifth, or sixth; hemiplegia with paraplegia; amaurosis with convulsions, or hemiplegia or paraplegia; mental disorder with convulsions, or palsy of some nerve, or hemiplegia, or paraplegia—such are groupings that point towards syphilis.

When the lesion is syphilitic in character various parts of the patient's brain and spinal cord are from time to time affected, and the intellectual faculties become disturbed. Patients not above the middle age of life go about as chronic invalids, with one or more of their limbs paralysed, and with impaired mental powers, indolent, slovenly, and stupid. They eventually sink into dementia, or mania.

Dr. Buzzard thinks such cases have been often compounded with "general paralysis of the insane," but the latter disease has a definite course of some months up to three years, and commences with trembling of tongue and lips, and marked mental derangement. The motor disturbances are bilateral, and not so marked at first as to be paralysis. The occurrence of inflammation of the membranes covering the hemispheres, with subsequent thickening and narrowing of the vessels, occasioning softening, will cause a disorganisation capable of explaining the mental as well as the physical troubles in syphilitic dementia.

Melancholia and dementia are often syphilitic. The ophthalmoscope is most useful in cases where syphilitic nerve disease is suspected; it may indicate tumours in the cranium by the optic neuritis caused by it, and there may be disseminated choroiditis, with small white spots in the posterior segment of the eye (atrophy of the choroid). There may also be atrophy of the disc. Graefe says that 75 per cent. of the cases of disseminated choroiditis are syphilitic in their origin.

Descending optic neuritis may co-exist with pretty good vision, and may indicate the occurrence of a gummy tumour in the meninges or brain.

Paralysis of one of the muscles of the eyeball is a very sequel of syphilis, and most important in its diagnosis. Ptosis shows that there is palsy of the upper division of the third nerve, or strabismus may be caused, and diplopia.

If palsy exists in a limb with marked atrophy and complete abolition of Farado-contraction in the muscles, with exaggerated reaction to the intermitted constant current, we may safely assume that there is lesion of the nerve trunk, and not central paralysis. This is not unfrequently met with in syphilis. The same fact diagnoses the palsy from wasting paralysis.

In chapter ii. the author treats of the pathology and morbid anatomy of syphilitic nervous affections. In many cases no lesion of the skin, &c., can be seen where nervous disease exists. He does not think he has seen any instance of the more severe syphilitic nervous affections occur sooner than two years after infection. Lancereaux says that secondary affections of the nerve centres are marked by symptoms but little differing from those of sub-acute inflammation. The pia mater being similar to the iris, may be supposed to be affected sometimes with inflammation similar to that membrane.

Long after brain disturbance in the form of palsy and convulsions had been referred to syphilis it was thought that the cranial bones must first of all become affected; but there may be affections of the membranes, the vessels, or the brain. The pia mater may be affected, and adhesion of the dura mater to the surface of the brain has been considered pathognomonic of syphilis.

(a) "Clinical Aspects of Syphilitic Nervous Affections." By Thomas Buzzard, M.D. London: J. and A. Churchill. 1874.

Dry caries of the skull may be caused by inflammation of the dura mater in its external table. Obstruction of the internal carotid artery has been noticed as well as of the meningeal vessels, and thickening of the walls of the vessels has been seen.

The gummy tumour of the brain is most often found on the surface or just below it. Entire convulsions may be transformed into whitish-grey indurated tissue. The cranial nerves have been found pressed upon by yellowish-grey gelatinous transparent masses covered with an indurated envelope.

In chapter iii. the author gives some interesting cases of nerve disease which have fallen under his notice, such as those of dyspepsia, headache, epilepsy, mania, and vertigo. Epileptiform attacks in children the author suggests may be of syphilitic origin. Some of the histories are a little obscure, and doubtless would be debated were they placed before a society; but in others the case is clearly made out, and the results of specific treatment are sometimes very satisfactory indeed.

In chapter iv., which treats of prognosis and therapeutics, Dr. Buzzard states truly that the treatment of syphilitic nerve disease is sometimes most satisfactory when early in occurring. When gummata occur in the brain, &c., the prognosis is more serious.

Persons who have had secondary symptoms often escape tertiary syphilis; but there is always a possibility of these occurring: hence treatment should be resumed when any relapse occurs. If the syphilitic nature of the disease be overlooked the patient often falls into a hopeless condition. Dr. Buzzard agrees with Ricord in prescribing mercury in the primary and secondary periods of syphilis and iodide of potassium in the tertiary period. It is not so easy however to be sure when nervous disease is of the secondary and when of the tertiary period. He therefore usually commences with iodide of potassium, and gives large doses; if this fail in three or four weeks to cure, he gives mercury in the form of perchloride, or red iodide in solution of iodide of potassium. Blue pill or grey powder may occasionally be given.

Iodide of potassium may be given, sometimes 30, 40, or even 90 grains, thrice daily. Dr. Elliotson used to give 2 drachms thrice daily. The iodide may be used as freely as the bromide. Iodism in the shape of nasal catarrh does not occur more frequently after large than after small doses, and even this frequently subsides very soon. He "knows of nothing in all therapeutics more extraordinary than the rapid effects of iodide of potassium in improving the condition of these patients." We quite agree with the author in this opinion. It need only be dissolved in water. In great cachexia with lardaceous changes neither mercury nor iodine succeed.

Such is a *résumé* of this most excellent little treatise. We heartily and cordially recommend all who desire to be considered practical clinical physicians or surgeons to peruse this excellent work.

will, I assume, be conceded that this Bill, if passed into law, will assign fresh and important duties to those bodies, and will render it impossible for any of them to continue to allow the previous sanitary legislation to remain in abeyance, and it will be further conceded that these duties will be of a nature to require for their proper performance that the boards charged with them should be provided with constant and accessible medical advice and direction.

Now, Sir, I venture to state that the provision made by that clause to supply such medical advice will not merely fail to supply it, but will either cause the Act to remain a dead letter, or else introduce inextricable confusion into its working. For what else can be expected where each sanitary body will be supplied with a dozen conflicting advisers, not one of whom will be within accessible distance, and every one of whom is already provided with duties that may at any moment confine him for days together to localities twenty miles away from the board-room.

This same 10th clause entirely ignores the very existence of workhouse medical officers. These gentlemen have hitherto discharged, and will without doubt continue to discharge, the duties of officers of public health in rural unions. Thus, for instance, when an epidemic of small-pox threatened to break out in the C. Union in 1872, the board of guardians never thought for an instant of applying for advice and direction as to how the epidemic was to be met to the distant and inaccessible medical officer in whose district its first ravages made themselves felt. Instant action was requisite, immediate attendance on the hastily-summoned board indispensable, and the presence of an official whose duties might at that moment have brought him and detained him miles from the board-room was utterly impracticable. Instinctively, therefore, they turned to the medical officer placed in constant and immediate attendance on them. That which happened in the C. Union in 1872 has happened in all other rural unions under like circumstances, and will from the nature of things continue to happen. No board of guardians will in like emergency ever dream of summoning the dozen or more conflicting medical advisers which they are to be supplied with for their guidance and direction. Fancy the condition of, say, the Dublin corporation on the occasion of some threatened outbreak, with the Babel of medical advisers whom the proposed clause would substitute for the single eminent officer of health they have at present, and you have the condition that rural sanitary authorities will be placed in, with this addition, that whereas the Babel of advisers in the case of the Dublin corporation will be within an accessible distance of the board whose misfortune, or good fortune, it will be to be distracted between the attractions of so many charmers, the country Babel will be found residing at such distances as to render their united presence impracticable almost at any time, and their individual presence unattainable within reasonable limits of time. The truth is, that unity and proximity of medical advice will be found to be indispensable in the carrying out of the very large powers with which it is proposed to invest the different sanitary authorities. It is true that power is given to the Local Government Board to remedy these evils by asking the local boards to appoint a superintendent officer, or other sanitary officer; but any one at all acquainted with the spirit which pervades those boards will know that any such attempt on the part of the Local Government Board will meet with one universal chorus of opposition from every board in the kingdom, as the one main idea of all such authorities, in the present state of popular education on sanitary subjects, will be to resist all additional expense, and to work the Act or Acts with the sole regard to the minimum of expense. It is only reasonable to suppose that the Local Government Board, which felt itself obliged to give way before a partial opposition when it was a question of making a single appointment for supplying pure drugs to the Poor-law hospitals and dispensaries, will not find itself able to resist the unanimous protests of local boards against any such additional appointments referred to. The simple plan—the plan which would be found at once just and practical—would be to appoint each workhouse medical officer the officer of health for the entire union, and (with) the different dispensary officers for local officers for their respective districts. The truth is, clause 10 is the embodiment of the views of certain amateur sanitarians in Dublin who have never yet obtained the slightest familiarity with the working of any board of authority outside the limits of the city in which they reside. I may mention in conclusion that I was recently favoured with a printed communication from

## Correspondence.

### THE PUBLIC HEALTH (IRELAND) BILL.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—I will thank you to afford me space for some remarks on clause 10 of the Public Health Bill. I am induced to trouble you with these comments because hitherto all criticism of the Bill has been confined to metropolitan members of the profession, and because no criticism has been bestowed on the Bill by any country medical officer who, like the writer, is by the nature of his duties conversant with the local working of the former Acts and with the spirit and ideas of those rural sanitary bodies to whom the working of the present Bill, if it become law, will have to be entrusted. It



two of those gentlemen, in which they modestly assured me that they were doing all they could for us, while at the very time their small efforts were being directed to exclude us from all share, save an unrecognised and unremunerated one, in the working of the Act.

Yours, &c.,

A WORKHOUSE MEDICAL OFFICER.

### EXAMINATION REFORM IN THE IRISH COLLEGE OF SURGEONS.

THE vote of censure of the General Medical Council upon the examination of the Irish College of Surgeons has electrified the profession in Ireland, and has been received at the same time with a consciousness that it was not unmerited, and with an impression that its motive and object was not altogether without prejudice. Everyone admits, even the councillors and examiners who smart under the castigation, that there is truth and force in the reprimand of the visitors, and it is confessed that reform has been too long trifled with, and must at length be carried into effect thoroughly and literally. We learn, indeed, that the Council has already made a move in the matter. But it is also felt that the virtuous indignation of Sir William Gull was not stirred to as great an effervescence by the visitors' reports on the Scotch licensing bodies as it was by their condemnation of the Irish College. The prevailing feeling in the Irish metropolis is that the Medical Council was glad to make the most of the peccadilloes of the Irish College, but could not see the sins of other licensing bodies in the same light.

It is right also to say that the Court of Examiners of the Irish College of Surgeons are not primarily or principally responsible for the existence of the reprehended system. They might, it is true, have effected the necessary reforms if they had cared to suggest the *modus operandi* to the Council, but it was not within their jurisdiction to make any radical change, and, on the whole, they have the credit of carrying out an extremely imperfect system, with every anxiety to do their duty, and perhaps as well as such a system could be made to work.

The visitors and Sir William Gull may, however, be excused if they have permitted a little personal prejudice to tincture their proceedings in the matter. They have undoubtedly put their finger upon a real and unendurable blemish, and have done excellent service by exploding the clique in the College who have hitherto devoted themselves to the no-reform policy.

In the House of Commons on Monday, in reply to Dr. Lush, Mr. Gathorne Hardy stated that the subject of the pay and allowances of the Medical Service was under his consideration.

THE *Hospital Gazette* understands that Messrs. Golding-Bird and Jacobson have been appointed Assistant-Demonstrators, Mr. Frederick Durham, Surgical Registrar, and that Mr. Davies-Colley will take the Operative Surgery Class at Guy's Hospital.

A SOMEWHAT novel case occurred at Lennoxton, Stirling, on Thursday. A young cow had been grazing in a field in which rifle practice had been going on. As the animal died very suddenly, a post-mortem was made, which disclosed the fact that it had been feeding upon the fragments of spent bullets, the stomach being loaded with twelve pounds of lead.

## Medical News.

**Royal College of Surgeons of England.**—The following gentlemen were admitted Members of the College after examination on the 21st and 22nd inst. :—

Atkinson, Francis E., Albion Place, Leeds.  
Cobbold, Charles S. W., M.D., Portsdown Road.  
Cotton, Holland John, M.B., C.M., Edinburgh.  
Cree, William Edward, L.S.A., Upper Holloway.  
Davey, Charles James, Witham, Essex.  
Davies, Elijah Knox, Stroud.  
Davies, Francis Thomas, L.R.C.P. Ed., Pendleton.  
Erith, William E. N., Camden Road.  
Farley, John Jay, M.D., McGill Coll., Canada.  
Fothergill, John Alexander, Alfred Place, W.  
Fowler, James Kingston, Arlington Street, W.  
Frost, William Adams, Ladbroke Square, W.  
Gibbons, Robert Alex., M.B. Edin., Edinburgh.  
Gresham, Frederick C., Springfield, Lancashire.  
Gwatkin, Owen, Brighton.  
Hallam, Walter, Sheffield.  
Hardy, James Arthur, Adelaide, South Australia.  
Kirby, Samuel J. J., Stratford, Essex.  
Knox, Charles F., Trinidad.  
Lendon, Edwin Hardin, Maidstone.  
Low, Charles Arthur, Wimborne, Dorset.  
Jones, Richard Sorton, Bangor, North Wales.  
Martin, John M. H., St. Helen's, Lancashire.  
Newman, Charles, Bristol.  
Phillips, Edward J. M., Liverpool.  
Priestley, Clement Edward, L.R.C.P., St. Faith's.  
Robson, Arthur W. M., Leeds.  
Rowntree, William G., Copenhagen Street, N.W.  
Soundby, Robert, M.B. Edin., Edinburgh.  
Shuter, James, B.A., B.M., LL.B., Holloway.  
Spitta, Edmund Johnson, Clapham Common.  
Stevens, Frederick G., Kingswood, Bristol.  
Taylor, George G. S., L.K.Q.C.P.I., Springfield.  
Thomson, Peter James, Harrington Street, N.W.  
Travers, Otho Robert, Cheam, Surrey.  
Vores, William Mallam, L.S.A., Yarmouth.  
Walker, William Samuel, L.R.C.P., St. Leonard's-on-Sea.  
Webb, Charles Ford, Stockwell, Surrey.  
Whately, George F., L.S.A., Great Berkhamstead.

The following gentlemen passed on the 23rd inst. :—

Briggs, George J., Hull.  
Watts, Fred., Plymouth.  
Boese, William F. F., L.R.C.P. Lond., Plymouth.  
Bott, Henry, Bourne, Lincolnshire.  
Miller, Robert Bickersteth, Torrington Square.  
Shepherd, Francis John, M.D., McGill College, Montreal.  
Lindsay, William Vickress, L.S.A., Pimlico.  
Brown, Walter, Tetbury, Gloucestershire.  
Forty, Daniel Herbert, Shillingford, Oxon.  
Griffiths, Cecil Neil, Cheltenham.  
Job, John, Redruth, Cornwall.  
Twort, William Henry, L.S.A., Upper Canton Place.  
Carter, Albert, L.S.A., South Lambeth Road.  
Hamerton, George Albert, L.S.A., Peckham.  
Morton, Andrew Stanford, M.B. Edin., Edinburgh.  
Davison, Rashell Thomas, Tritlington, Northumberland.  
Hawken, Giles L. L., L.S.A., Camelford, Cornwall.

### NOTICES TO CORRESPONDENTS.

MR. FRANCIS VACHER, Birkenhead.—Paper "On Certain Improvements in the Hinged Short Forceps" received.

MR. LAKE.—We have seen but two numbers of the "Church Stretton Lunatic Asylum Magazine," the last about twelve months back. We believe there have been none others published, the reasons for which we must refer you to Dr. Hyalop, the Editor, Church Stretton, who may perhaps be able to induce some of his literary prodigies to write this foreing weather. We observe from a local paper they played a cricket match the other day regardless of the fact that windows are made of glass, and turned somersaults for a flower in their button-hole or a feather in their cap to the tune of a passing stream.

NEW MEDICAL JOURNALS.—Two new journals have started into existence during the past week, named respectively *The Paris Medical Record* and *Echo de la Presse Médicale*. The former is printed in Paris, and is the only medical journal in the English language published in

France; the latter is published in Paris also, but in the language of the country. The one is chiefly occupied with translations from the French journals into English; the other with translations from the English into French. Both are fortnightly, and we wish them success.

To the Editor of the MEDICAL PRESS AND CIRCULAR.

SIR,—Pray pardon me for sending the enclosed correspondence.

Yours obediently,

29 Beaufort Street, Chelsea,  
July 22nd, 1874.

EDWARDS CRISP.

General Council of Medical Education and Registration,  
July 20th, 1874.

SIR,—I write to inform you that the Medical Council has been compelled to conclude its session before it could take into its consideration all the subjects referred to it.

And that, under these circumstances, the Business Committee of the Council has directed me to return to you your communication (enclosed herewith) dated the 18th inst., since it is impossible that any answer could be given to it other than that which has repeatedly been given to similar communications from you before.

I am, Sir, your obedient servant,

Edwards Crisp, Esq., M.D.

FRAS. HAWKINS, M.D.,  
Registrar.

P.S.—Your note and addendum has been placed in my hands since the foregoing letter was written; but I return herewith the addendum, which is a part and parcel only of the subjects which the Medical Council has declined to entertain.—F. H.

To the President and Council of Medical Education and Registration.

I infer from the answer I have received that the Medical Council refuses to inquire into any misdemeanour or delinquency on the part of members of their own body, or of any councillor connected with one of the corporations; but that any member amongst the unrepresented thousands may be had up before your nearly self-elected conclave and be expelled from the Register. I will, at your next meeting, endeavour to place the matter before you in a new light.

I am, Gentlemen,

Yours obediently,

29 Beaufort Street, Chelsea.  
July 22nd, 1874.

EDWARDS CRISP.

We have received from Dr. Elliot a letter which appears to have been written for the Secretary of some Life Assurance Office. Probably the letter intended for us has been inserted in the wrong envelope. As, however, we do not know which Dr. Elliot to communicate with, the right one will oblige by directing us what to do with the letter received.

QUACKERY.—A correspondent has forwarded to us a "cheap and nasty" pamphlet of the well-known London quack doctor Hamilton, which he says is being widely distributed at the West End, and ought to be exposed. We are tired of exposing Hamilton and the gang of which he is so prominent a member; the law allows him to exist in our midst, and the Government derive revenue from the distribution of his filth through the post. Perhaps our correspondent will undertake *pro bono publico* the prosecution of the individual he so much and not unnaturally objects to; we will help him by all means in our power, but he must not omit to supply us with his name and address, which he has done on the present occasion.

COMMUNICATIONS with Enclosures, &c., have been received from Dr. Burder, Bristol. Dr. Meadows, London. Dr. Orange, Broadmoor Lunatic Asylum. The Editor of *Echo de la Presse Médicale*, Paris. Dr. West, Stroud. Dr. James, Stoney Stratford. Mr. Simon, Privy Council Office. Dr. Kirby, London. Dr. Crichton Browne, Wakefield. Dr. Günther, Munich. Mr. James C. Dickinson, London. The Secretary of the Cancer Hospital. Dr. Percival, Manchester Square. Mr. Dayman, London. Dr. Campbell Black, Glasgow. Dr. Milner Fothergill, London. Mr. Baden Bengier, Manchester. Dr. Edwards Crisp, Chelsea. Mr. Sewill, London. Dr. Airdge, Newcastle. Mr. Bailey Denton. The Secretary to the Local Government Board. Mr. Cowell, Westminster Hospital. Mr. Blackett, Society for Relief of Widows of Medical Men. Dr. Henry Finch, Colchester. Mr. Vacher, Birkenhead. Mr. Aston Scotter. Mr. Haviland, Northampton. Mr. Whatford, Brighton. Dr. Morgan, Dublin. Mr. Eschwege, London. Dr. Apjohn, Dublin. Mr. Gant, London. Mr. Tyrrell, Malvern. Messrs. Upton, Johnson, and Co., London. Dr. Edmunds, London. Mr. Gaskoin, London. Mr. Blyth, Royal Free Hospital. Dr. Marsden, London. Mr. Sloane, East Grinstead. Messrs. Nichols and Leatherdale, London. Dr. Collard, Bishopwearmouth. Dr. H. V. Carter, London. Mr. W. Berry, Wigan. Mr. Lake. Dr. Elliot. Dr. Alex. G. Burness, London. Dr. Drysdale, London. Mr. G. Barracough. Dr. Henry Kennedy, Dublin. A Workhouse Medical Officer. Dr. Scott, New York, &c., &c.

BOOKS, PAMPHLETS, AND MEDICAL JOURNALS RECEIVED  
Searches for Summer. By C. Home Douglas. Edinburgh: Blackwood and Sons.

On the Past, Present, and Future of Therapeutics. By R. Farquharson, M.D. London: Smith, Elder, and Co.  
On the Use of Strychnine in Epilepsy. By W. Tyrrell, M.R.C.S. London: Robert Hardwicke.

Observations on Affections of the Respiratory Organs. By Henry Finch, M.D.  
Reports of the Medical Officers of the Privy Council.  
Congenital Syphilis in the Infant. By Thos. Ballard, M.D. London: J. and A. Churchill.  
A Guide to the Examination at the Royal College of Surgeons of England. By F. J. Gant, F.R.C.S. London: Henry Renshaw.  
Sulphur in Ireland. By C. Carter Blake, Doct. Sci.  
Annual Report of the Broadmoor Criminal Lunatic Asylum.

### VACANCIES.

Royal Free Hospital, London. Junior House Surgeon. Appointment for six months. Board and residence provided. Full particulars of the Secretary. (See Advt.)  
East London Hospital for Children. Assistant Visiting Physician. Election August 4th. Particulars may be obtained of the Secretary. (See Advt.)  
Metropolitan Free Hospital. Assistant Physician, Honorary.  
Royal London Orthopaedic Hospital. Surgeon on the Staff, Honorary. Applications to the Secretary, 315 Oxford Street, W.  
Parish of Kensington. Non-Resident Dispenser for the Infirmary. Salary, £100 per annum, with dinner on the six days of attendance. Address the Clerk to the Guardians, Marlborough Road, Kensington, W.  
Ealing. Medical Officer of Health. Salary, £75 per annum, under the Health Act. Applications to the Clerk to the Board.  
Liverpool Northern Hospital. House Surgeon. Salary, £100, with board and lodging. Applicants must address the Chairman of Committee.  
Macclesfield General Infirmary. Resident Medical Officer. Salary, £120, with board. Address the Secretary at the Infirmary.  
Newport Infirmary, Monmouthshire. Resident Medical Officer. Salary, £100, with board and lodging. Application to the Secretary.

### APPOINTMENTS.

BAXTER, E. B., M.D., M.R.C.P.L., Professor of Materia Medica at King's College, London.  
BUCKELL, G., M.R.C.S.E., Medical Officer of Health for the Camelford Rural Sanitary District.  
DUFFIN, A. B., M.D., F.R.C.P.L., Physician to King's College Hospital.  
FAIRBANK, W., M.R.C.S.E., House Surgeon to the Royal Albert Infirmary and Dispensary, Wigan.  
FAIRCLOTH, J. M. C., M.D., M.R.C.P.L., a Physician to the General Infirmary, Northampton.  
GRIFFIN, G. L., L.K.Q.C.P.I., L.R.C.S.I., Medical Officer, &c., for the Pallaskerry Dispensary District of the Rathkeale Union, co. Limerick.  
LILLY, J. H., L.R.C.P.Ed., L.F.P. & S. Glas., Medical Superintendent of the Western Infirmary, Glasgow.  
ORCHARD, T. N., M.B., C.M., Hon. Surgeon to the Panditton Ladies' Medical Society of St. Mary's Hospital, Manchester.  
PARSONS, F. J., L.R.C.P.Ed., M.R.C.S.E., Medical Officer of Health for the Portland Urban Sanitary District.  
RAWSON, W. F., L.R.C.P.Ed., L.R.C.S.Ed., Medical Officer of Health for the North Brierley Urban Sanitary District.  
RECKLESS, A., L.R.C.P.Ed., M.R.C.S.E., Medical Officer for the North-West District of the Sheffield Union.  
RYE, A. B., F.R.C.S.E., Medical Officer to the Dolansey Hospital, Cheltenham.  
SIMPSON, B. V., L.R.C.P.Ed., Apothecary to the Gort Union Workhouse and Dispensary District of the Gort Union.  
SMITH, T. H., L.R.C.P.L., M.R.C.S.E., Medical Officer for the Alcester District and the Workhouse of the Alcester Union.  
SYMES, W. S., L.K.Q.C.P.I., L.R.C.S.I., Medical Officer, &c., for the Maryborough Dispensary District of the Mountmellick Union, Queen's co.  
TWEEDALE, T., M.R.C.S.E., Medical Officer for the Stainland District of the Halifax Union.  
YELLOWLEES, D., M.D., L.R.C.S.Ed., Resident Physician-Superintendent of the Glasgow Royal Lunatic Asylum.

### Marriages.

GLOUTING—CLARK.—On the 25th inst., at St. Paul's, Newmarket, J. R. Clouting, M.H.C.S., of Thetford, to Grace, daughter of J. F. Clark, of Newmarket.  
PLATT—WINN.—On the 22nd inst., at St. Mary's, Kilburn, W. H. Platt, L.R.C.P., of Kilburn, to Kate Ellen, daughter of the late W. Winn, of Lincoln.  
RED—WATSON.—On the 21st inst., at Cults, Aberdeen, Alexander Reid, M.A., M.D., of Cannonbury, London, to Annie, second daughter of the late R. Watson, Builder, Aberdeen.

### Deaths.

CLARKE.—On the 17th July, at Leahy Terrace, Sandymount, Dublin, Terence Clarke, Surgeon R.N. (retired list), aged 93.  
HOLDEN.—On the 2nd July, Geo. Holden, M.D., of Lakemead, Totnes, aged 41.  
HIRSCHBERG.—On the 15th July, at Paignton, South Devonshire, H. J. Hirschberg, M.D., aged 60.  
STEELE.—On the 11th July, H. C. B. Steele, M.R.C.S.E., of Stokeferry, Norfolk, aged 64.  
TAYLOR.—On the 22nd July, at 7 Church Street, Wicklow, James R. Taylor, M.D.  
THORN.—On the 21st June, R. L. Thorn, M.R.C.S.E., of Buckingham Palace Road, Pimlico, S.W.  
WILKINSON.—On the 18th July, at Kingstown, on her 79th birthday, Harriett, widow of the late James Wilkinson, M.D., of Blackrock, co. Dublin.  
WATTS.—On the 24th July, at The Mount, Shrewsbury, John Watts, M.D. Edin., M.R.C.S., aged 54.

# The Medical Press & Circular.

"SALUS POPULI SUPREMA LEX."

WEDNESDAY, AUGUST 5, 1874.

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## Original Communications.

### LECTURES ON BRIGHT'S DISEASE,

WITH SPECIAL REFERENCE TO

PATHOLOGY AND TREATMENT,

DELIVERED AT THE ROYAL INFIRMARY OF GLASGOW,

By D. CAMPBELL BLACK, M.D.,

One of the Physicians to the Hospital.

LECTURE V.

(Continued from page 83.)

*Theory of Uræmic Poisoning.*—Until very recently the opinion was generally entertained that one of the most formidable complications and most ominous of approaching death—viz., the epileptiform convulsions and the succeeding coma, which frequently terminate the protracted illness in cases of cachectic nephritis, were due to the retention in the blood of urea; hence the terms uræmia and uræmic poisoning, terms which ought to be discarded if a nomenclature conformable to pathological conditions is desiderated. The idea, then, that the convulsions met with in chronic Bright's disease are due to urea, is one, as I shall show you, not longer tenable.

In cases of epilepsy it may be received as a universally admitted fact that the immediate cause of the convulsions is a sudden deprivation of blood from the brain or particular portions of it; and it is well known to what an extent reflex irritation operates as a factor in the production of this condition. It may therefore be said that convulsions are produced in a twofold manner, the one physical—an interruption to the current of blood, as from embolism, &c.—the other physiological, i.e., through causes operating on the nervous centres, and in turn on the minute arterioles, probably contracting them and disturbing the normal balance of the circulation. But again, poisoned blood may lead to structural changes in the brain

as elsewhere; hence the albuminuric retinitis, so-called, disease of the vessels of the brain, and the possible contingency of cerebral hæmorrhage. All this does not militate, however, against the belief that the convulsions may be due to one or other of the retained urinary products, but that this product is urea, the facts proving the contrary are so numerous and so overwhelming that the idea cannot be rationally entertained.

While it is perfectly true that there is no such thing as complete vicarious elimination, it is equally true that between the skin and the kidneys there is a functional co-ordination neither unimportant nor very limited. Hence, in cases of anuria urea is eliminated by the skin as well as doubtless by other excretory organs. Desault therefore remarks: "Il est vrai que la nature prévient quelquefois les accidents ou retarde leur naissance en se débarrassant en partie des urines, par d'autres émonctories, tel que la peau, les oreilles, les narines, la bouche, les mamelles, l'anus, &c." Dr. Johnstone (a) mentions a case of suppression in which for some days before death the skin was all over as white as if it had been powdered; this white dust on being gathered was found to have the taste of crude sal-ammoniac. This ammoniacal salt, presuming it to have been such, might have resulted from the decomposition of urea. According to Schottin, in cases of a similar nature urea is found in pus, and milk, and the sweat may contain so much of it as to form a dust on the skin. More recently, Dr. Deininger (b) published the case of a boy, æt. 5, who suffered from anurea renalis for a whole week, and on whose skin urea was discovered. Five cases of this kind have been recorded by Jürgensen and Leube, but the issue was fatal in their cases, whereas, Dr. Deininger's patient recovered. In none of these cases are we informed that there were convulsions. But not only does the skin sympathise vicariously with the kidney but there is every reason to suppose from analogy and post-mortem appearances that the diarrhoea which is so frequent and so capricious in Bright's disease—a symptom, by the way noted by writers of the greatest antiquity—

(a) London Medical Commentaries, vol. v.

(b) Deut. Arch. Clin. fur. Med.

can be regarded in no other light than that of a vicarious flux. This diarrhoea comes on suddenly, disappears suddenly, and is little under the influence of medicinal agents; it is frequently serous, and abundant, as in cholera, and weakens the patient to such an extent that he often regards it as the major ailment.

However abundant that diarrhoea may be it does not diminish the dropsey; indeed, it is not rare to find an augmentation of both conditions concomitant.

Post-mortem examination reveals the intestinal tract either healthy in appearance or discoloured; or rather offers such slight textural alterations as not to explain their derangement during life. Bright reports a case of this description, where the duodenum was found very vascular. Hodgkin has seen the ilium very much injected and of a purple colour, but without ulceration or any alteration in the intestinal follicles. Rayer has observed the small intestine affected in the same manner, either solely in that state or conjoined with other pathological changes. Christison relates a case where the mucous membrane at the termination of the ilium and the commencement of the colon was of a chocolate colour and soft. Martin-Solon has seen the mucous membrane of the last convolutions of the ileum, the end of the colon, and all the rectum, thickened, greyish, interspersed with reddish patches, small points, and vascular arborisations. In a case of Gregory's there were red patches and ecchymoses in the small intestines; in short, the appearance which the intestinal tract presents has a close analogy to the condition of the kidney, and the other organs mentioned, as being occasionally implicated in the general morbid process. That this condition represents the elimination of material incompatible with the healthy functional action of the bowels there can be no reasonable doubt.

Not only does urea from this point of view appear not to be the immediate cause of the convulsions, but direct experiments prove that its introduction into the blood is not followed by convulsions, or if symptoms of poisoning occur that there is a marked disparity between the quantity necessary to produce these phenomena and that which is found in the blood in cases of so-called uræmic poisoning. Thus, Gallois has demonstrated that in the rabbit 20 grammes of urea must be introduced into the stomach to produce toxic effects. Bright, Christison, Schottin, and others have proved in like manner that urea can exist in considerable quantity in the blood without causing death; and Parkes, Schottin, and Mossler have shown that urea may be increased in the urine even beyond its normal quantity in uræmia. Hammond, it is true, has obtained results somewhat different, and insisting that the healthy kidney permitted the elimination of the urea injected, submitted the animal to nephrotomy. But this is assuredly a serious mutilation, and which complicates the experiment to such an extent as to nullify the results; the shock of the operation alone suffices to cause death.

Bence Jones ascribed the phenomena of uræmic convulsions (and the term may be provisionally retained for convenience sake) to oxalic acid, but the presence of this acid in the blood is doubtful, and when introduced gives rise to different symptoms.

From these considerations, Frerichs, in 1851, expressed the opinion that in the presence of carbonate of ammonia in the blood was found the solution of the difficulty. According to this authority urea encounters in the blood a special ferment which converts it into carbonate of ammonia. The existence of this ferment has never been demonstrated, and the only proofs for this view, even according to Frerichs, are a violet colouration of the blood, the presence of carbonate of ammonia in the vomited matters, and the dejections. These proofs are certainly of doubtful value, and the theory at issue must be held as unproven.

In 1860 this theory was modified by Freitz and Jaksch, who maintained that the conversion of urea into carbonate of ammonia took place not in the blood, but in the intestines, and that in this form it was reabsorbed into the blood. Carbonate of ammonia has been proved to exist normally in the blood, although in very small quantity;

and Rosenstein has remarked that in cases of uræmia the quantity therein contained is not sensibly augmented.

It is true that carbonate of ammonia introduced into the blood occasions convulsions; but to produce this effect the quantity must be large; thus, Frerichs found that it was essential to the production of these phenomena to introduce into the blood of the dog no less than from one to two grammes. Injected into the frog, clonic convulsions are produced, but not the other phenomena of uræmic poisoning, especially the epileptiform convulsions and the coma; and relatively to the weight of the animals operated on Rosenstein has remarked that to produce the same consequences in man from 20 to 30 grammes of carbonate of ammonia would be requisite, a quantity which would be easily demonstrated in the blood by chemical appliances; yet the merest traces of this agent are found in the blood of persons who die from so-called uræmic poisoning.

It is worthy of further remark that Jaksch pointed out in 1860 a distinction between the symptoms which supervene on arrested secretion of urine—or *uræmia* properly so-called—and those that follow reabsorption of urine which had become ammoniacal. To the latter he applied the term *amoniemia*. In such cases it was pointed out that the breath and urine give off an ammoniacal odour, that rigors are frequent, that vomiting is invariable; while in the former case—in uræmia of Bright's disease—neither the breath nor urine exhale this odour, there are no rigors, and vomiting may be wanting. In 1868 M. See affirmed his adherence to this differentiation. Scherer, Hoppe, and Oppler, recognising the insufficiency of the foregoing views to meet the phenomena in question, have attributed the uræmic symptoms to the retention of inferior products of oxidation, such as creatin, creatinine, leucine, and such other *extractive matters*. Oppler has found these substances augmented in the fluids of the body, and even in the muscles. Chalvet recognised in the presence of these matters an indication of diminished organic combustion, a view which again accords with that which I have advanced regarding the pathology of fatty degeneration of the kidney and liver, and the production of urea in the latter organ. While it is not possible, then, in the present state of our knowledge, to condescend with certainty on the particular agent which gives rise to the nervous complication in cachectic nephritis, we seek in vain for pathological changes in the cerebro-spinal system as invariable concomitants of this condition. It is true that in certain cases sub-arachnoid serous effusion is discovered; or, in other cases, the ventricles and base of the brain are the seat of considerable effusion. Barlow, (a) by treating this fluid with nitric acid, has obtained nitrate of urea.

Sometimes, though more rarely, there exist symptoms of genuine arachnitis—the arachnoid is thickened, or opaque; but it is noteworthy that *this condition has been found in cases where, antecedent to death, the coma and convulsions were absent*. Bright, Christison, and Gregory have observed cerebro-spinal symptoms in cases in which post-mortem examination revealed an ex-sanguine, and others in which the substance of the brain was vascular or red. In 400 cases Frerichs and Rosenstein (b) found arachnitis in only nine. That the convulsions are due to inflammatory complications is therefore an hypothesis that must be rejected.

The view adopted by Traube, and the one I believe now most generally followed, is that whatever be the disturbing agent, it acts by causing an impression on the vaso-motor nerves, whereby contraction of the cerebral arterioles follows, and consequent anæmia of the brain. It must not be concealed, however, that while this view may satisfactorily

(a) Bright, "Guy's Hospital Reports," No. 11, 1836, p. 333.

(b) Quite recently (*Lyon Méd.*) Rosenstein has noticed the coincidence of albuminuria with meningitis. In nearly all the patients of this class albumen was found in the urine in the early stages of this affection. In a considerable number of them tube-casts, blood-globules, and epithelium cells were found, just as in genuine cases of Bright's disease. The lesions found after death were similar to those of cachectic nephritis. The kidney was increased in size, the hypertrophy being chiefly confined to the cortical portion; the renal tissue was injected, and the glomeruli injected with blood, with extravasation of blood into the urinary tubules.

account for the coma, it fails to do so for the convulsions and delirium.

With regard to the urinary secretion in relation to uræmic poisoning, Bright has seen the nervous complications succeed to cases of dropsy with coagulable urine, or in cases in which the urine contained albumen, but where dropsy was absent. Christison has noticed that the complications in question were not necessarily coincident with diminished secretion of urine. He has seen coma come on in a case where the patient voided thirty ounces of urine *per diem*; on the other hand, he has seen the urine reduced to a fourth of its normal quantity without the supervention of cerebral symptoms. According to Christison, the coma may occur early, or in the advanced stages of the affection in an equal degree. The early occurrence of coma is, however, more peculiar to cases of scarlatina, and I can bear my testimony to the opinion that the gravest cerebrospinal complications may be recovered from in these cases, while in cachectic nephritis they are almost necessarily fatal.

*Varieties of Nervous Complications.*—Antecedent to the occurrence of the nervous complications, however, as a rule, the quantity of urine secreted is diminished; usually it contains less urea, the quantity is reduced from 30 to 32 grammes for twenty-four hours to 20, 10, or even 7. The chlorides are diminished in the same proportion, being reduced, as in inflammatory affections, from 11 grms. to 1 or 2 grammes; the same obtains with respect to the phosphates. On the other hand, according to Schottin and Chalvet, a marked increase of extractive matters exists in the urine; and, according to Frerichs, the quantity of albumen may be estimated at from 5 to 25 grammes. Though the quantity of urine may be about normal, its density is diminished; from 1025, which may be regarded as normal, it falls to 1015 or 1008. The acid reaction of the urine is generally feeble, except at the commencement of the disease. In the acute form of the disease the complications under consideration come on suddenly, and without warning, in many cases. In others there is sharp headache, sometimes frontal, sometimes occipital. The latter has been regarded by some as the special precursor of the convulsive form of uræmia. At the same time, there is insomnia, nocturnal agitation, symptoms which contrast strongly with the usual apathetic condition of the patient; memory is impaired, bodily movements are slowly performed, and hearing is obtuse.

Sometimes the first symptom is sudden loss of sight—a symptom which must not be confounded with a parallel condition associated with albuminuric retinitis in cases of chronic Bright's disease. Not unfrequently persistent vomiting ushers in this stage of the disease—a symptom which no condition of the stomach exists to explain. At other times an habitual diarrhoea and vomiting may be suddenly arrested, when the nervous symptoms supervene so suddenly as to justify the belief in the vicariousness of the intestinal and gastric derangement.

On other occasions local convulsions alone constitute the earliest symptoms.

However the nervous symptoms may be foreshadowed, they present in their totality such marked destructive features as to justify their division into three forms—1. *The Convulsive Form*; 2. *The Comatose Form*; 3. *The Mixed Form*; and M. Fournier adds a 4th, the *Rare Form* (*formes rares*), *Convulsive Form*. This form presents the following characteristics: It is subdivisible into three varieties—the first, the *eclamptic*, is ushered in by sudden loss of consciousness, with tonic convulsions at the outset; then the clonic form, followed by somnolency, coma, and stertorous breathing—the condition resembles very much a true epileptic seizure. There exist, however, the following differences: the absence of the premonitory cry of epilepsy; and here there is frequently a pallor of countenance. Especially in this condition is there a distinctive absence of the unilateral preponderance of convulsions so characteristic of true epilepsy; again, in these cases the thumb is not contracted in powerful formation on the palm of the hand. In epilepsy, reflex sensibility of the mucous

membranes remains; in the uræmic eclampsia it is absent. Frothing at the mouth and biting of the tongue are not usually noticed in uræmic convulsions, though rarely these symptoms are noticed. Usually, the clonic convulsions are general, but sometimes *localised convulsions* do occur, so as to constitute another variety.

(To be continued.)

## MEDICAL SCIENCE AND MEDICAL TEACHING

By GEORGE BARRACLOUGH, M.A. (Cantab.), M.R.C.S.

(Continued from page 86.)

"FIXED principles," of course, are what we want, but the great question is, How are we to get them? And in reference to this the great end, Dr. Wilks gives us very little assistance. "Attain them by the ordinary scientific rules," he affirms. But the ordinary scientific rules, as deduced from the whole history of scientific thought, tell us that there can be no true law, no fixed principle discovered without the exercise of much imagination, or "fancy," as Dr. Wilks calls it, of a theoretical character, and for the most part meditated in studies. But no methods involving the exercise of such imagination or fancy can have any weight with our author, even in face of the fact that a scrutiny of the processes of thought informs us that even in geometry considerations of a theoretical and imaginative kind preceded the demonstrations, or these latter would not have been evolved. The scientific rules, then, which Dr. Wilks designates "ordinary," must be extraordinary to others, *i.e.*, there must be something profound behind his phrases which these do not adequately reveal, and this something must be Dr. Wilks's *novum organum*. Further, in speaking with so much assurance about the ordinary rules, as if there were some universal *consensus* amongst philosophers on the subject, our monitor forgets, as I have before remarked, that very grave differences exist amongst authorities as to the rules and methods to be adopted in scientific researches. But if there is one point on which authorities agree, it is that theory must always precede the evolution of fixed principles.

When Dr. Wilks remarks, "surely we should possess our knowledge first, and theorise afterwards," to what end, we inquire, is theory conceived to be a means and an instrument? That end is not knowledge or science, for we can have this, we are informed, without theory. If, in the first place, we can have the great object to be achieved by scientific research, *viz.*, knowledge, why theorise afterwards—why theorise at all, when we can obtain the thing we want without theorising. It may be objected that knowledge does not here mean anything more than acquaintance with fact. But does knowledge ever mean anything more with Dr. Wilks? Even in face of the expression "fixed principles"—for these may mean with our author only wider familiarity with fact than we now have—when we see him reject all abstract processes of thought, all preconceptions, all creative efforts of the imagination which involve theory, we cannot help the misgiving that his doctrine consists in the view of science as only acquaintance or familiarity with facts and the observation and registration of these. Besides, we are justified in presuming that anyone employing the term knowledge without any caution or qualifying expression, would, when addressing an audience more or less scientific, use it in reference to what he conceived to be the highest and most perfect information we could acquire on any subject. Of course, Dr. Wilks has a perfect right to his own use of language, and though he here departs from received usage of a term, this is a proceeding quite defensible when it implies, as it appears to do here, a departure from received doctrine. I may venture to affirm that, with the vast majority of scientific minds, not even excepting Comte, knowledge is viewed as something very different from mere familiarity with, and registration

of, fact. Nor is the term ever employed by these authorities in a lower sense without special indication that it is not restricted to this, its merely casual sense and application. I have not excluded Comte from the list, for I do not at all see how some persons, and notably Whewell, are justified in representing Comte as rejecting all theory, and as taking his stand simply on acquaintance with fact. Such assertion does not seem borne out when, in the second volume of the "Philosophie Positive," we meet with such a passage as this: "Ceux qui font consister la science dans la simple accumulation des faits observés n'ont qu'à considérer avec quelque attention l'astronomie pour sentir combien leur pensée est étroite et superficielle." But the whole paragraph is worthy of perusal, and others might be culled from the "Philosophie" in the same interest. Whether M. Comte is consistent in all this is another question, and one into which I need not enter. I mention Comte here because a positivism somewhat similar to his, and, no doubt, in part derived from it, though even worse in character, has—especially in medical circles—struck its roots deeply amongst us, and appeals only too successfully to the worst prejudices and deficiencies of the English mind. It is by virtue of that in M. Comte which appeals to the deficiencies of the English intellect—viz., his absurd negations, which have given his writings a hold in this country similar to that which was long ago achieved by the scientific works of Bacon. But with Bacon the bane and antidote go much more freely together than they ever do in the physical writings of M. Comte; for Bacon was far from being consistent in method, and what is decried in one page is often appreciated in the next. Yet, if people would pay a little more attention to M. Comte's not unwise remarks on the gradation of the sciences, and a little less to his absurd negations, useful results might follow, especially in the medical sciences.

In all knowledge which results from ascertaining the laws of objective phenomena we must (leaving out certain abstruse considerations, which I need not mention here) have previous acquaintance with elementary fact, and if anyone chooses to call this mere acquaintance "knowledge," of course, we must have this first—no one denies it. The question, in respect of fact, is not so much one of priority as of quantity, number, and simplicity. And this question of how much or how many, can only be decided by actual trial in the direction of theory serving as guide to knowledge in the higher or scientific sense of the term. When investigating any class of phenomena, so soon as we have made acquaintance with the simplest and most elementary facts, we are in a position legitimately to apply theory. If we do not do this, it is because we are either deficient in imaginative and inventive faculty, or because we are restrained by wrong notions of method. Once admitting that any observer is in the right path of research in respect to facts, it is highly presumptuous in anyone to dictate to him the time at which he may or may not theorise. How is it that comparatively few facts are sufficient for some minds to evolve law, whereas the most unlimited number are not sufficient for others? The same facts which proved so fruitful and so all-sufficient in the hands of Kepler, Harvey, and Newton were patent to the senses of their contemporaries. But why did they prove so fruitless in the hands of these latter? We can quite easily imagine his matter-of-fact contemporaries addressing Kepler in this way: "Pray, Mr. Kepler, do you not see the advisability of giving up your inveterate habit of theorising? You have already constructed nineteen false theories about the planetary orbits, and if you make nineteen hundred more you will be just as far as ever from being helped to discover the true paths of the planets; the data are not sufficient." Well, the twentieth theory did come, and with what results to science we all know.

"Knowledge first, theorise afterwards," even in the sense of fact first, and theory afterwards, is far from being true of all fact, or, indeed, of the way in which we become acquainted with most of the facts that we want. No better illustration of this, and of the function of theory generally,

could be instanced than is afforded by Dr. Wilks himself when he records his own experiences in the following extract from his address before the British Medical Association at Birmingham: "Whilst I am on this subject I must say a word in reference to another piece of pathology, on which a dissection of the dead can alone throw a light, and one which ere this (I own a personal shame) ought to have been perfected; it is akin to the matter of which we have been just now speaking. If it be true that the morbid changes be found progressing through tissues rather than particular organs, as it were by accident, it follows that these different tissues have their own special morbid changes, and none others. What we ask ourselves, therefore, is this question, What are the morbid changes to which each tissue is liable? . . . . The morbid anatomist ought long ago to have answered the question, and, I believe, *had my own attention been directed (a) to this subject earlier*, the amount of material passing under my hand would have been simply sufficient to have afforded a satisfactory solution of it. . . . Now, if what I say be true, the primary morbid changes in the lungs are strictly limited; the epithelium may produce well-formed cells, as found in pneumonia, and ill-formed ones, as met with in the chronic degenerations, *but beyond this the lung may be incapable of alteration.*" Here, the learned doctor lets us see how he has become acquainted with a certain theory, to the effect that the different tissues of the human body have their own special morbid changes, and none others. He also affirms his belief, that had he been acquainted with this theory at a more early period of his career, the material open to his observation was quite sufficient to have verified that theory. Why, then, did he not make the very important observations required? For the simple and all-sufficient reason that he was not, at that time, possessed of the theory necessary to guide him to the observation of the facts which, for want of such a theory, escaped his observation. He was not armed with that theoretical anticipation to which Bacon attached so much importance when he affirmed, after Plato, that "a searcher must have some general notion of the thing he searches after, otherwise he could never know it when he had found it; and therefore, the more comprehensive and sure our anticipation is, the more direct and short will be the investigation." In the present case the matter of fact was present to the corporeal sense, but the theoretically instructed mind was not there to recognise it, and change crude matter of fact into matter formed, i.e., into fact useful for scientific knowledge. In regard to the above theory, which in one form or other is, I presume, a very old one, I may remark, in passing, that it appears, in the hands of our author, to require a second theory to prop it up. For instance, cancer, when occurring primarily in some tissue, is regarded simply in the light of a changed mode of existence of the tissue, without any special theory being enunciated as to the manner of the change. But when cancer occurs subsequently—in the lung, say—it is designated by our author as a "deposit," i.e., something involving the theory that the changed form of an alien tissue is conveyed bodily by some vehicle, and deposited in successive layers on the tissue of the lung, after the manner of mud and stones deposited on the sea-shore by successive waves of the ocean, and thus destroying the organ merely by its presence; or, more conformably with our author's impressed views, the altered form of a certain tissue, when it comes into contact with, or is "deposited" in, the lung, suddenly develops the most wonderful powers of propagating itself afresh, by throwing out roots, it would seem, and possibly developing a sexual system, and thus destroying the lung, not by exciting any morbid change in it, but merely by appropriating its substance through the agency of organs newly acquired in some unaccountable manner. The question we ask here is, What are the preliminary facts on which this theory is founded? Or shall we not rather say that the use of that hide-ignorance term "deposit" has simply concealed an ignorance of the absence of these necessary facts. Of all

(a) The italics are mine throughout.



the misguiding words that so abound in the pathological vocabulary, that word "deposit" has the most sins to answer for. Here, as employed by an eminent physician, it seems to imply that all diseases, even constitutional or diathetic ones, are, if secondary, of a parasitic character.

From the manner in which some people talk, we can hardly help the conclusion, at which indeed Comte seems to have arrived, that they deem the observation and registration of fact the main and perhaps only business of the man of science. Against such persons it seems almost a childish task to contend that even so low down in the scale as physical science the facts are sufficiently numerous to baffle both observation and enumeration; and we have just seen that the facts of most importance are precisely those which we are least likely to observe without the aid of theory. Abstraction and generalisation must step in, and for the forming of those generalisations which tend to the evolution of law theory is indispensable; and most of all are such processes needful when we come to deal with the complicated phenomena of life. No scientific definition of disease, it is almost needless to remark, could be framed from the mere enumeration of phenomena independently of abstraction and generalisation. When the physician, for instance, in discussing such a malady as syphilis, affirms that one person exhibits a mild, another a more severe, and a third person a varied and complicated form of the disease, if he is not a nominalist his language implies that he recognises an ideal type as the thing that science has to deal with. Of course, this ideal type, in the imperfect state of our knowledge, may be only provisional in respect to the ideal which we ought to form or strive to form. Further, What, we ask, is the nature of this conception, theory, or ideality? It is not the phenomena as manifested in one or another individual, for so (though true phenomenally) we should have as many diseases as there are individuals; we should be lost in the countless host of individualities, and scientific communication would be impossible—"Smith" and "Jones" would not serve as designations of disease. Hence we see, that though we rightly speak of the ideal conception as the disease, it is not phenomenal, though based on phenomena; nor does it, in our view, represent anything transcendental and noumenal in the manner that we have seen it do in the hands of Dr. Wilks. No higher reality can be conferred on it by mis-realising it or attempting to give it an "objective" existence beyond phenomena and independent of mind. Such a proceeding is bad philosophy, and involves a kind of metaphysics which tends to bring many legitimate processes which may properly be termed metaphysical into contempt. As a simple mental creation, the ideal conception has its own proper reality, though, of course, it may be wrongly abstracted, and hastily generalised—may be bad theory, or wrong conception, and then it is unreal, because false, *i.e.*, not truly representative of fact. But if correctly idealised it may, so far as it goes, be properly regarded as the thing we have to deal with in science, and as having, for us, a higher scientific reality than phenomena, because, if correctly theorised, it comprehends not only all known, but all the possible to be known phenomena of the subject. Thus, though containing an element that is not in the phenomena, by virtue of which it serves us as we have seen the mere phenomena cannot serve us, it is nevertheless not at variance with any of these, either as actual or possible. This is how it happens that *τό νοητόν* not only does, but must take the place of *τό αἰσθητόν*, if we are to have science or knowledge. And to this effect Bacon testifies when he declares that "the true rule of a perfect inquiry is, that nothing can be found in the material globe which has not its correspondent in the crystalline globe—the understanding, or that there is nothing found in practice which has not its particular doctrine and theory."

A good illustration of empirical helplessness is afforded by the following utterance of an eminent physician, who spoke to this effect:—"Many years ago we determined to have nothing more to do with theory, and formed a society of observation. The society has ceased to exist,

but it collected a great many valuable facts, and there they are, *but I don't know what will be done with them.*" Here we have a perfect glut of facts, and then, as only result—"I don't know what will be done with them!" How forcibly this recalls the inspired lines of a living poet:—

"For I say, this is death and the sole death,  
When a man's loss comes to him from his gain,

A lamp's death when, replete with oil, it chokes;  
A stomach's when, surcharged with food, it starves."

There are persons, it would seem, who consider that facts have some inherent power by virtue of which they can spontaneously generate knowledge or science, independently of any exertion on the part of the mind. This appears to be the case with Dr. Wilks when, though he deprecates the use of the only methods by which facts can be made fruitful, he writes: "I do not wish to under-rate the researches of those who are investigating the actions of medicines, but would hail the time when these could be found to bear fruit." In the face of such depreciation of the only fruitful methods of research, we seem to be justified in considering that the similitude conveyed in the expression "found to bear fruit" is intended to be regarded as literally true, in the sense that facts, like plants being left for a season, will spontaneously generate fruit—as if, having collected many facts and placed them in our museums with a plentiful supply of spirit, we should address them thus: "Now facts, we are about to depart for a season, and when we return, mind you bear fruit and plenty of it; alcoholic spirit you shall have in abundance, but *spiritus mentis* we have none to give you, as we do not keep that article in store—it might be dangerous. Considering the variety and utter discordance of medical experiences, empiricism can claim no advantage, in point of unanimity over theory; and theory certainly has one advantage over empiricism: it does call into play some of the higher faculties of the mind. Indeed, if simple registration of fact is to be the sole occupation of medical men in their professional labours, the sooner they betake themselves to the study of subjects which call into action the ratiocinative and imaginative powers, such as mathematics, poetry, and history, the better it will be, otherwise the results may become highly untoward. Bearing in mind that the medical profession probably draws its recruits less from the outside world than any other of the liberal professions, it would be as well to scrutinise some of our empirical families with a view to ascertain whether they have not already begun to develop, or rather degenerate into, a peculiar type of organisation through the disuse of certain faculties. Really Mr. Darwin ought to be consulted on this point, it is quite serious.

Candidly, I do not think we are in a position to hope-fully apply theory to the facts of human pathology, not because the facts are insufficient, but because they are more than sufficient, in the sense, *i.e.*, of being more than a match for us. I have before dwelt on the necessity, not merely of priority, but of simplicity, of fact; in reference to theorising, of course such language is relative. In the absence of that knowledge of the subordinate laws, or generalisations of fact, which is a needful preliminary to the fruitful study of what is higher, the phenomena of human pathology which now meet our gaze lack simplicity, are too complicated for our present capabilities. But when we have the requisite preliminary knowledge of subordinate law the facts are sufficiently simple, and are suggestive of theory that we can hope to verify. Had we a better conception of the beginnings and articulations of nature, whether morbid or otherwise, should we not commence our researches at a much humbler distance from the more complicated phenomena in a series of almost incalculable immensity. In respect to the remoter stars, want of proximity is the chief obstacle to our knowledge; but in respect to a portion of organised matter, such as constitutes our own bodies, we have proximity of the closest kind, but how profoundly difficult the acquisition of knowledge about it! Physicians have hitherto found themselves unable

to meet the difficulty of calculating the tides at certain spots on the surface of the ocean, on account of the complication of the phenomena concerned. And yet the complication here is little compared with that which is presented in dealing with some considerations suggested by the structure and functions of the most lowly organised monad in existence. If we find such difficulty in discovering "law" amongst the phenomena of merely inanimate nature, and a still greater difficulty in the simplest forms of matter where the phenomena of life come into play, how can we anticipate anything but perplexity and barrenness if we commence our search after law in the highest and most complicated forms of vital existence? If our science is inadequate to grapple with disease in a grape or potato, is it surprising that disease in man should mock our therapeutics in the way it does?

(To be continued.)

## INDIAN MEDICAL NOTES—No. XXI.

(FROM OUR SPECIAL CORRESPONDENT.)

MEERUT, UPPER INDIA,  
June, 1874.

It would be a great boon if in every large station there were means of obtaining condensed information concerning medical topography, so that common sense details could at once be mastered, instead of blundering in the dark, knocking our heads, barking our shins, or tumbling into pitfalls; in fact, expensively buying experience, well known to many, yet not recorded. Formerly, newspapers, periodicals, magazines flourished at Meerut. Where are they? Lost in the mutiny, else destroyed by the ants, the rats, or the rains. Two papers cleared £5,000 a year, the leading articles written by officers, some of whom are now in high positions. Occasionally an odd volume turns up telling of sport, flirtation, drinking, gambling, duels—amusing, yet wearily monotonous. Give me facts—medical facts. In 1846 there were 10,000 troops here, about the time when the barracks at Loodianah were blown down by a dust-storm, crushing many of the gallant 50th Regiment—the heroes of Aliwal and Sobraon. Mr. Lang, alluding to the monkey-tank at Meerut, and the extraordinary periodical pilgrimages in myriads to sacred shrines so wonderfully organised by these ancestors of ours, also states that in the cemetery, besides Artillerymen, the 8th, 11th Dragoons, 16th Lancers, Buffs, and Cameronians slept, in 1856—"Their swords are rust, their souls are with the saints we trust." Mr. Lang praises mesmerism, and for some time a hospital on this system succeeded in India. We do not throw stones at mesmerism, homeopathy, or hydropathy, at Warburgh's tincture, James's powder, or Cockle's pills, at galvanic belts, or opodeldoc; but, unfortunately, these too often are the dangerous fraudulent weapons of the charlatan, and people who blamed Elliotson did not appreciate his great discoveries. Up to the time of Lord Lake and Sir Arthur Wellesley, this station being unknown to Europeans greatly did it please Bishop Heber, spending Christmas here in 1825, to confirm 300 persons, to have many communicants, and probably more than all, to hear his own composition—that pretty hymn, "Brightest and Best," sung heartily at the Church service. When the Governor-General, Lord Auckland, passed through in 1838, the female characters of "Diana Vernon," "Juliet," and "Desdemona," at the theatre were represented by strapping tall Lancers in flaxen wigs, long ringlets, but without gloves or Grecian-bend accessories. To enliven three regiments there were but two young ladies, very pretty girls, who, leaving eight others at home, came out to their sister married in the Lancers.

Dr. Russell, during the mutiny, dining once at the Artillery mess (on his road to Agra) praises up the band as conducted by one of Costa's disciples. The glory has

since departed, the plate and the pictures scattered, some at Woolwich; still, in the opinion of old stagers who have dined everywhere, the mess is now a very good one—the food, wine, silver, glass, crockery, table-linen quite up to the mark. The medical officer doing duty here what with the remains of the library of the Bengal Artillery, billiards, whist, besides out-door pursuits, need never be dull. So long as bad cases recover, the minor worries or private annoyances can be neutralised. If he wants to marry there are opportunities—very amiable, attractive girls, warranted to stand climate, whose faces are their fortunes. A bachelor's mess-bill may be about £14; house-rent, say £5; servants, including sundries, £7; the remainder including horses, buggy, clothes, uniform, tent, canteen, vary according to chances, circumstances, or the individual. You may steal a tent, or pick up bargains at auctions, and just when horses, furniture, and necessaries have been accumulated, the order to move necessitates your sale. A married officer, at the very least, ought to have £50 a month to provide the necessities of Indian life, although poor Lola Montes, of operatic, or rather ballet recollection—a lovely girl of 15—eloped from school with a junior subaltern whose annual income only amounted to £192. Returning to original text. Lieutenant Lumsden left Meerut for Calcutta in 1819, travelling first by road, then by boat down the Ganges, 1,200 miles in eight weeks, fare, £23—a crew of nine, the boat 40 feet long, often aground on sandbanks. Troops proceeding up country would be dogged at various places by natives selling cheap arrack. In some vessels on the long voyage from England, neither colchicum, grey powder, liniments, poultices, pill-boxes, gallipots, bottles, oiled silk, nor invalid cooking arrangements were available, yet the sick list would be small, the provisions including ducks, geese, salt beef, pork, and fish. In India, calomel, opium, quinine, chloroform, ipecacuanha, castor-oil, turpentine, brandy, and essence of beef will tide over many ailments. Leeches and ice are very valuable, but "far above rubies." The sanitarian's *vade mecum* is a stout dog-whip, to coax the lazy, idle, dirty cooks, sweepers, water-carriers, punkah pullers, tattie coolers, hospital servants, milkmen—in fact, natives generally who defile everything, retard progress, defy conservancy rules, and invite the wave of pestilence. When soldiers return from exciting service in the field to listless *ennui* in barracks, the desire for fruit and vegetables is but natural. The thirsty insatiable craving for spirits has from time immemorial interfered with health and discipline; many a poor fellow struggles hard against the temptation, intensified by the jeering ridicule of comrades. To relieve the parched palate coffee is seldom good; some recommend tea as delicious, cooling, and refreshing, which nobody can deny. The objections to cheap claret-cup are the chance of adulteration leading to colic and dysentery, the difficulty of weaning either English, Irish, or Scotchmen from their old loves—brandy, whisky, or rum; all drink alike, but the Scotchman has the best constitution, the hardest head, and puts more money in the bank, the very man for India. By all accounts native liquor is being supplanted to the detriment of the excise revenue by European concoctions, probably as pernicious, if not more so; therefore, we must still use moral suasion to persuade men to drink in moderation. Just as in an English village where the railway-station has at once two companions—the church and the public-house—the civilisation here progresses. A minute analysis of the Meerut water has not yet been alluded to. Unfortunately, the inability to detect the cause of any fever, the doubts thrown upon certain tests, the want of certain reagents must be pleaded just for the present, as I am unwilling to put forward an old analysis. No evidence of sewage contamination; and the greatest stress is laid on careful filtration to avoid as far as practicable the countless hidden dangers of polluted water. Dr. Alex. Smith, alluding to the failure of the germ or fungus theory, reiterates the dangers of neglected conservancy. Very possibly fire is our chief disinfectant, for the kites,

the vultures, and the adjutants who lived on excreta or on our vile bodies poisoning the soil are now decreased in numbers. Bearing in mind that the urine of 1,500 persons in one week amounts to 2,000 gallons, how are we to separate the solid from the liquid excreta, and to disinfect the former with dry earth unless each individual co-operates. The geological formation in many places should be remembered—

1. Cultivated alluvium, a sandy loam, 1 to 5 feet.
2. Kunkur, 3 inches to 3 feet, very irregular.
3. Porous sandy clay in layers, from 14 to 25 feet.
4. Fine blue pure permeable sand, 30 to 35 feet thick.

Here is the water-level.

5. Light-coloured, mysterious, impermeable clay.

Now, 1, 2, and 3 being porous, when the ground becomes polluted by human beings, animals, filth-pits, or decaying vegetation, by burial of ourselves, or hospital excreta, the combined agencies of heat and moisture brew putrescent fever. One inventor suggests a barrack made of iron, with air compartments, and fitted like a puzzle, to pull to pieces periodically for removal anywhere, and to be cooled by a steam-engine bringing air down a lofty chimney. Some writers allude to tiled floors, which, unless well-glazed, roughened, periodically rebaked, or if indifferently cemented, constitute porous sponges retaining pestilence indefinitely, the ground below remaining pure. Slate, stone, or teak would be very expensive. Double-storeyed barracks may be eight degrees hotter than others, indeed, have been 112°; yet by closing in archways with screens, and by rigid attention to cooling appliances, the temperature has been considerably reduced. Major Pengree claims for his patent refrigerator the power of reducing temperature 17 degrees. Such topics as hill-beer, sewage-farms, the prevention of slaughter of female animals, improvements in breeding, compulsory gardening by soldiers to supply vegetables, the preservation of birds, fishes, and forests, the prevention of rinderpest, the increase of mountain batteries of artillery, the encouragement of small savings of pay, the ventilation of the workshop question, the spread of education, and above all things, the attempt to control the liquor-trade in bazaars, all affect the health of the soldier. As for books or papers, however numerous, the most popular will ever be sensational novels, or the *Police Gazette*, with thrilling illustrations.

This great country has made gigantic strides since 1857; still, an immensity remains to be done, and we all have appointed tasks.

Each man's work is elastic to a certain extent, in which some succeed, some fail, others idle at the plough. If a person has health in India there are plenty of resources to keep off rust and ennui, and in the language of Shelley—

"Life, like a dome of many-coloured glass,  
Stains the white radiance of eternity."

## Hospital Reports.

### CASHEL UNION HOSPITAL.

(Under the care of DR. LAFFAN.)

I HAVE had, within a recent period, some cases of excision and amputation in my wards. Two cases of polypus presented themselves; both were of many years' standing. One occurred in a young man, æt. 25, was of the size of a small orange, and situated on the back. I removed it readily with the *écraseur*. The patient suffered little inconvenience, and was well in a few days.

The second case of polypus occurred in an elderly female. The growth was situated on the right labia, was furnished with a long pedicle, and was somewhat larger than the last. The pedicle was ligatured, and the growth removed with the knife. The patient did well.

A case of fibrous tumour somewhat larger than either of the last two, and situated in the region known to anatomists as Cloquet's snuff-box, also presented itself for operation. The patient was a middle-aged man, a painter by trade, and had laboured for years under the inconvenience and unsightliness caused by its presence. The tumour was removed by the knife. The parts soon healed. Teno-synovitis of the sheath of the extensor tendons of the thumb followed, which produced temporary stiffness of that finger. After a few weeks, however, the man regained perfect use of it, and left well.

I have also operated on two successive occasions, within an interval of a few months, on a middle-aged man, for sebaceous tumours of the scalp. Four or five were removed by the knife on each occasion; smart bleeding ensued, but was easily controlled, and the parts readily healed.

Amputation of the two inner toes of the left foot in an elderly female has had to be performed by me in consequence of a severe burn. The toes were removed without interfering with the plantar surface. The three outer toes which were only a degree less injured, furnished by their recovery another instance of the wonderful recuperative powers of these parts. The patient has now a good stump, and can walk without any lameness.

I also had recently under my care a case of caries of the metatarsal bone and proximal phalanx of the great toe of the left foot, in a scrofulous child of ten. It produced such an effect on the constitution of the child as to imperatively require excision of the parts. The bones were removed by a simple dorsal incision. The parts healed, and the patient was restored to perfect health in a short time.

There are, I suppose, few surgeons who have not met with instances of great mischief to the hand following neglected or mistreated paranechia. A poor labourer was recently admitted by me to hospital, suffering from necrosis of the second and terminal phalanx of one of the fingers, arising from this cause. The diseased parts were removed by an incision through the dorsum of the finger. The few vessels that bled were secured by my dresser, Mr. Dwyer, and the part placed by him on a straight splint. The man left with a useful finger, which was little shorter than the rest.

The grave consequences which have sometimes followed from slight contusions about the ankle-joint have often been the subject of remark. I some time since admitted a man, æt. 60, suffering from advanced disease of the tendinous structures on the front of this joint. The early history pointed to a slight contusion of the soft parts, and the disease had subsequently extended to the adjacent bones of the tarsus. Every effort was made to get the inflammation under but without success, and after much patient trial it became evident that if the patient's life were to be preserved amputation should be performed. At this stage Dr. Russell of this city, was so good as to see the case, and concurred in the propriety of removing the limb. The condition of the soft structures of the leg was unfavourable to amputation low down. The limb was accordingly removed in the upper third. Antero-posterior flaps with near skin and fascia at the extremities were made. The stump was dressed on the antiseptic method, and general supporting treatment employed. Not the slightest attempt at reaction was ever evinced, and the patient succumbed from combined exhaustion and pyæmia on the 22nd day. (a)

I have met with two other such cases. One of them was that of an old man, and was caused by a slight blow of a hammer. I saw the man in an early stage of the disease; he left me after a few days, and returned some months later, to die from its effects.

The third case happened in a young man, and was produced also by some slight cause. I saw this case early, treated it as I would a paranechia—viz., by free incisions. The patient did well.

(a) I have to express my obligations to Drs. McCarthy and Corby for the kind assistance rendered by them in the removal of this limb.

The last case I shall mention is one of internal piles. They occurred in a female beyond the middle period; they were two in number, and of the round fleshy kind. The patient requested their removal, as they caused her intolerable pain, and ordinary remedies had failed to afford her relief. On examination, the pain was found to be due to ulceration of the apices. I ligatured one, and deferred ligaturing the second for another day. The ulcerated apices were cauterised with the fuming nitric acid. The ligature came away in due time, and both piles were found to be cured. The patient's troubles were not, however, yet over, for in three weeks afterwards dropsy came on. This yielded however in a short time to appropriate treatment, and the patient was discharged well and free from all pain.

## STUDENTS' COLUMN.

### LECTURES ON HUMAN ANATOMY.

By WALTER RIVINGTON, M.S. Lond., F.R.C.S. Eng.,  
Surgeon to the London Hospital and Lecturer on Anatomy at the  
London Hospital Medical College.

#### LECTURE XI.

*Advisability of exercising the reason in studying Anatomy and of preserving an independence of thought—Articulations of the Ribs, Costal Cartilages, and Sternum—Tabular View of the Anatomy of these parts—The Thorax as a whole—Respiration—Uses of the Elasticity of the Thoracic Parietes—Alteration in Dimensions in Respiration—Different Modes of Respiration—Variations in the Thorax at different Ages and in the two Sexes—Alteration from Disease of the Lungs—Curvatures of the Spine—Mollities Ossium—Fractures of the Sternum and Ribs—Artificial Respiration.*

GENTLEMEN,—Let me urge you, when you are studying anatomy, not to be satisfied with merely loading the memory with a mass of dry facts without definite meaning to your minds, but to inquire as you proceed in your course what is the end or object of each part, and to try and solve the question, "Why is this bone, or ligament, or muscle, or whatever part it may be which you have in hand, fashioned in this particular manner?" It may be that you will not be able always to answer the question, for there are some parts of the body with whose use in the economy we are very imperfectly acquainted, but there are many parts about which there is no obscurity, and others whose office you may learn by personal observation and reflection. The knowledge which you gain and work out for yourselves is far more valuable than any other kind of acquired information, because it results from effort which disciplines the mental powers. Next I would urge you not to accept with an uninquiring acquiescence the statements which are made either in your text-books or in the theatre. It is a wise maxim which Horace has laid down, not to swear allegiance to any master. Nothing is more common than to hear a text-book quoted as if it were an infallible oracle, and as if anything not in accordance with its utterances were necessarily an error. The student should endeavour to "prove all things, and to hold fast that which is right." I make these remarks because I think that it is essential to your progress for you to preserve an independence of thought, and to exercise your reasons as well as your memories. In no other way can your anatomical studies really improve your mental powers—in no other way can you make anatomy interesting. We study the details of anatomical structure for the purpose of ascertaining their uses and functions, and we endeavour to ascertain their uses and functions in order to throw light upon their derangements and acquire the means of applying rational remedies. So far as I may be able in the time at my disposal, I shall aim at connecting anatomy with physiology on the one hand, and with surgery and medicine on the other. Design may be better than execution, but if execution fails the design will remain for some one else more worthily to execute.

In the last lecture I dwelt minutely, and no doubt a little tediously, on the points of distinction which the individual

Ribs possess, because I am persuaded that the exact movements which occur in respiration cannot be satisfactorily determined without a thorough comprehension of the effects of the variations which we notice in the disposition of their common elements. One of the prominent anatomical and physiological discussions of the present day is the action of the Intercostal Muscles, and the movements of the Thorax in the respiratory act. No one could properly understand this subject, or read with profit the writings on either side of this scientific controversy without knowing thoroughly the relative size, shape, direction, and anatomical peculiarities of each Rib, the movements of which it is capable, and the limitations which the ligaments assign to these movements. The latter subject still remains for our consideration. It will be convenient to describe the Ligaments under the following heads:—

I. The Articulations formed between the *Heads* of the Ribs and the *Bodies* of the Vertebrae. II. The articulations formed between the *Necks* and *Tubercles* of the Ribs and the *Transverse Processes* of the Vertebrae. III. The ligaments of the Sternum. IV. The Articulations of the Costal Cartilages.

I. The *Heads* of the Ribs are joined to the *Bodies* of the Vertebrae by two ligaments; (1) the *Anterior Costo-Vertebral*, or *Stellate*, and (2) the *Inter-Articular*.

(1) The *Anterior Costo-Vertebral* or *Stellate* Ligament is attached to the front of the *Heads* of the Ribs, and derives its name *Stellate* from the fact that the fibres radiate to their points of insertion into the *Bodies* of the Vertebrae and *Inter-Vertebral Disks* like the luminous rays emitted by a star. There are three sets of ligamentous rays—a *Superior*, passing obliquely upwards and inwards to the *Body* of the Vertebra above; a *Middle*, passing transversely inwards to the *Inter-Articular Fibro-Cartilage*; and an *Inferior*, passing downwards and inwards to the *Body* of the Vertebra below. On removing this ligament, the two joints between the *Heads* of the Ribs and its corresponding Vertebrae are displayed, lined by synovial membranes, and separated by the

(2) *Inter-Articular Ligament*.—This ligament is a band of fibres which runs from the ridge between the facets on the Rib and the lower part of the *Inter-Vertebral Disk*.

The foregoing descriptions will not apply to the articulation between the 1st Rib and the 1st Dorsal Vertebra, nor to those between the 10th, (a) 11th, and 12th Ribs, and the 10th, 11th, and 12th Dorsal Vertebrae. In each of these joints the *Head* of the Rib having only one facet, and articulating with only one Vertebra, the *Inter-Articular Ligament* is wanting, and the fibres of the *Stellate Ligament*, although reaching the Vertebra above, are less distinctly divided. All the joints may be regarded as *arthrodial*, or *gliding* joints.

The motions permitted between the *Heads* of the Ribs and the Vertebrae consist of slight gliding motions forwards and backwards, and upwards and downwards, and a limited amount of rotation on a transverse axis drawn through the *Inter-Articular Ligaments*.

Both the *Stellate* and *Inter-Articular Ligaments* prevent the *Heads* of the Ribs from being separated from the Vertebrae, and will act most efficiently, according to the universal law of ligaments, in counteracting force applied in the direction of their fibres. Thus, the superior rays of the *Stellate Ligament* will oppose the separation of the upper facet of the Rib downwards and outwards from the upper Vertebra, and the inferior rays will oppose the separation of the lower facet upwards and outwards from the lower Vertebra. Both the superior and inferior rays will join with the middle in opposing the separation of the *Head* directly outwards. The *Inter-Articular Ligaments* will assist the *Stellate*, and counteract the tendency of the *Head* to ascend in inspiration; being bound to the *Disk* and to the *bodies* of the Vertebrae, the *Heads* of the Ribs will influence and be influenced by their movements.

II. The *Necks* of the Ribs are attached to the *Transverse Processes* by two ligaments called the *Anterior* and *Middle Costo-Transverse Ligaments*. The *Tubercles* of the Ribs are united to the ends of the *Transverse Processes* by *Capsular Ligaments* and by the *Posterior Costo-Transverse Ligaments*.

A glance at the Skeleton will remind you that the *Transverse Processes* of most of the Dorsal Vertebrae stand obliquely outwards, backwards, and upwards from the *Arches*. The direction of the *Transverse Processes* upwards has evident reference to the convenience of meeting the Ribs in their

(a) Reference to Gray or Quain will show the omission of the 10th from this category, and yet both anatomists state, when describing the bones, that the 10th Rib has only one facet for the single facet on the 10th Dorsal Vertebra.

passage from the Bodies of the Vertebrae, and their direction backwards enables the Ribs to make a greater posterior curve, and thereby to increase the capacity of the Chest in that direction. The *Transverse Processes* bear at their extremities concave facets covered by cartilage, and looking generally upwards, outwards, and forwards, to receive the oppositely inclined facets, which are placed on the lower parts of the Necks of the Ribs. The arthrodial or gliding joints thus formed are surrounded by *Capsular Ligaments* and lined with *Synovial Membranes*. The movements permitted are rotation and gliding upwards and downwards of the Tubercles of the Ribs, and they are limited by the *Three Costo-Transverse Ligaments* which bind the Necks of the Ribs firmly to the *Transverse Processes*. The term *Costo-Transverse* is a scientific term, because it indicates the attachments of the Ligaments to the Ribs on the one hand by the prefix *Costo* (from *Costa*, a Rib), and to the *Transverse Process* on the other.

The *Anterior Costo-Transverse Ligament* passes from the upper prominent margin or crest of each Rib to the lower border of the Transverse Process of the upper of the two Vertebrae with which the Head of the Rib articulates. Its fibres run obliquely upwards and outwards from the Neck to the Transverse Process, and will evidently prevent motion of the Neck downwards and inwards. The ligament is broad and strong, and there is often a small additional and separate band on its inner side, as well as some posterior fibres having an opposite direction.

The *Middle Costo-Transverse*, or *Inter-Osseous Ligament*, passes horizontally backwards from the lower part of the Neck of the Rib to the Transverse Process. To display this ligament the Rib must either be forcibly wrenched away from the process, or a horizontal section of both must be made. It will obviously prevent separation of the two bones, and limit movements generally.

The *Posterior Costo-Transverse Ligament* runs obliquely upwards and outwards from the end of the *Transverse Process* to the Tuberosity of the Rib. It is broad and strong, and its fibres become tense when the Rib is elevated.

An examination of the *Transverse Processes* of the Dorsal Vertebrae and the adjacent parts will exhibit interesting correspondences, some of which I have not seen noticed elsewhere. More or less distinctly marked on the anterior face of the Transverse Process may be seen a ridge, which runs outwards to the facet at its extremity. Above the ridge the surface slopes upwards and backwards; below the ridge it is hollowed. The upper part is opposite to the lower half of the posterior surface of the Neck of the Rib, and its slope allows room for the Neck of the Rib in rotation backwards; the lower part is hollowed to make room for the anterior branch of the Dorsi-Spinal Nerve, which issues from the Inter-Vertebral Foramen, and passes upwards, backwards, and outwards to the lower margin of the Rib above. The ridge on the Transverse Process separating the two differently inclined surfaces attaches the Middle Costo-Transverse Ligament. Between the inner border of the Anterior Costo-Transverse Ligament and the Vertebra is an aperture which gives passage to the posterior branch of the Spinal Nerve issuing from the Inter-Vertebral Foramen, and to the posterior branch of the Intercostal Artery. At the root of the *Transverse Process*, and between it and the Inferior Articular Process, is a Notch, or hollow, which allows room for the posterior branches of the Nerve and Artery in their journey to the back. This Notch is well seen on a posterior view of the vertebral column.

III. The *First and Second Pieces of the Sternum*, the Manubrium and the Gladiolus, are united in one of two ways. The joint formed between them is either *Amphiarthrodial* or *Diarthrodial*. In the *Amphiarthrodial* form of joint there is a single piece of Fibro-Cartilage uniting the ends of the bones, and connected by fibrous tissue with the Cartilages of the 2nd pair of ribs. In the *Diarthrodial* form of joint there are two distinct layers of Cartilage, one covering the end of the Manubrium, and the other the end of the Gladiolus. The cavity of the joint communicates on each side with the articulation formed between the lower facet on the Cartilage of the 2nd Rib and the facet on the upper angle of the Gladiolus, a common synovial membrane lining the united cavities of the three joints. The joints formed between the upper facet on the 2nd Costal Cartilage and the Manubrium is shut off from the common cavity below by the fibrous tissue which unites the salient angle of the Cartilage of the Rib with the layer of Cartilage covering the end of the Manubrium. Whichever form of joint exists, the ligaments are the same in kind and disposition; anteriorly and posteriorly there are some short ligamentous fibres connecting the ends of the

Manubrium and the Gladiolus. The posterior set of fibres are often thick, filling up a rather wide interval, which exists posteriorly between the 1st and 2nd pieces of the Sternum. Both anteriorly and posteriorly the two segments of the Sternum are joined by a thick Periosteum, which passes over the joint and conceals from view the short ligaments just described. The amount of motion permitted at the joint varies greatly, and seems to be altogether dependent rather on age than on the nature of the joint existing in any particular specimen. Sometimes it is an obscure to and fro movement, obtainable only on strong pressure, at other times there is appreciable gliding, coupled with some amount of rotation. (a)

IV. The *Cartilage of the 1st Rib* is implanted in the large depression at the upper end of the lateral aspect of the Manubrium, and its tissue is often directly continuous with the Sternum. The *Cartilages of the other True Ribs* generally form arthrodial or gliding joints with the depressions on the Sternum. In the articulations between the 2nd and 3rd Costal Cartilages and the Sternum there are, or ought to be, *two joints* lined with distinct synovial membranes, and separated by an *Inter-Articular Ligament*. In the case of the 2nd Rib this ligament passes from the Costal Cartilage either to a symphyseal fibro-cartilage between the Manubrium and the Gladiolus, or to a distinct layer of cartilage covering the Manubrium. The *fourth, fifth, sixth, and seventh* Costal Cartilages play in *single* synovial cavities. All the joints are protected by radiating *Anterior and Posterior Costo-Sternal Ligaments*, and the movements permitted are slight gliding movements of the ends of the Cartilages upwards and downwards and forwards and backwards. The analogy which has already been pointed out between the sternal and vertebral joints of the Ribs is increased by the presence of radiating or *stellate* ligaments covering the front of both. Some transverse fibres passing from the anterior aspect of the 7th Costal Cartilage to the Ensiform Cartilage are called the *Costo-Xiphoid Ligament*. All the ligamentous fibres on the Sternum are more or less blended with each other with the periosteum and with the tendinous attachments of the muscles.

Articulations lined with synovial membrane and surrounded with capsular fibres are occasionally found between the contiguous margins of some two or more of the Costal Cartilages beginning at the 6th and ending at the 10th.

The costal ends of the Cartilages are implanted in the pits at the ends of the Ribs, and the Periosteum of the Ribs is continuous with the Perichondrium of the Cartilages. The chief points already dwelt on may be exhibited in a

#### TABULAR VIEW OF THE RIBS, COSTAL CARTILAGES, AND STERNUM, AND THEIR LIGAMENTS.

##### I. Ribs.

Parts of Rib.		Corresponding Parts.	Mode of union, &c.
Head presents	1. A small facet above, covered by cartilage	Facet on upper Vertebra	Synovial gliding joint
	2. A ridge opposite and attached to	Disk	Interarticular Ligament
	3. A larger facet below covered by cartilage	Facet on lower Vertebra	Synovial gliding joint
	4. Anterior surface attached to	Two Vertebrae and Disk	Anterior Costo-vertebral or Stellate Ligament, which has 3 fasciculi

(a) The existence in many Sterna of a diarthrodial joint between the Manubrium and the Gladiolus was pointed out by M. Maisonneuve, and his observations are contained in a paper entitled "Recherches sur la Luxation des Deux Premières Pièces du Sternum," contained in the *Archives Générales de Médecine*, iii. serie, tome xix. M. Maisonneuve found the diarthrodial joint in two out of five specimens; but he does not state how many specimens he examined. He observed it more frequently in the female than in the male, and with greater frequency in the adult and aged persons than among the young. According to him, the Ensiform Cartilage remains separate from the Gladiolus up to 50 years of age, and the Manubrium up to an age still more advanced; and he believes bony union of the Manubrium and Gladiolus to be an anomaly, as he had only seen two or three examples of it. My own observations differ in some respects from those of M. Maisonneuve. The rarity of the diarthrodial joint in the young I can fully confirm, but I found it of less frequent occurrence in the female, and not so common as the amphiarthrodial form. I believe that the diarthrodial joint is formed generally by absorption after the age of puberty. Ossification of the Cartilages uniting the segments of the Sternum I have seen more frequently than M. Maisonneuve, and at an earlier age. The following are the results of examination of 100 fresh Sterna: 51 exhibited the amphiarthrodial joint and 32 the diarthrodial joint, 11 were of a mixed nature, the separation between the two segments being incomplete, and 6 had undergone ossification. For further detail reference may be made to a paper by the author, read at the Medico-Chirurgical Society in January last, and in course of publication in the Society's "Transactions."

Neck presents	1. Upper Border elevated into a Crest and joined to	Lower Border of Transverse Process above	Anterior Costo-Transverse Ligament
	2. Anterior surface, smooth, covered by	Pleura and Posterior Border of the Lung	
	3. Posterior Surface, rough, foraminiferous, joined to	Transverse Process of Vertebra below	Middle Costo-Transverse or Inter-osseous Ligament
	4. Inferior Border continuous with the ridge on the Shaft		
Tuberosity	Articular smooth facet internally and inferiorly	Facet on the Transverse Process	Capular Ligament and Synovial Membrane, gliding joint
	Rough elevation externally and superiorly	Tip of Transverse Process	Posterior Costo-Transverse Ligament
Angle (Posterior)	Point of junction of segments of 2 circles, of which the anterior is the larger. Direction of rib altered at this point. Rib strengthened at a weak point		
Body or Shaft	1. External Surface convex, marked by	Posterior Angle	Attaches Tendons of Erector Muscles of back
		Anterior Angle	Attaches muscles
	2. Internal Surface	Ridge	Attaches internal intercostal muscle
		Groove	Lodges intercostal vessels and nerves
		Foraminiferous	Attaches intercostal muscles, internal and external
	3. Superior Border, thick		Attaches external intercostal muscle
	4. Inferior Border, thin		Receives outer end of Costal Cartilage
	5. Anterior End, cup-shaped		

**Differential Characters of the Ribs.**—First 7, Vertebro-Sternal, or True Ribs; 8th, 9th, 10th, Vertebro-Costal; 11th, 12th, Vertebro-Costal, or Floating Ribs.

**Length**—Increases from 1st to 8th or 7th; Decreases from 7th to 12th. 1st and 12th nearly equal.

**Breadth**—1st widest, rest diminish gradually.

**Curve**—Diminishes from 1st to last.

**Peculiar Ribs**—1st, 10th, 11th, and 12th. Each of these has one facet only on the Head. Interarticular Ligament absent.

**1st Rib**—Surfaces—Superior and inferior Borders—Internal and external Tubercle and Angle correspond. Neck flattened from above downwards.

**Markings on the Upper Surface**

1. Groove for Subclavian Vein
2. Tubercle and Ridge for Anterior Scalene Muscle
3. Groove for Subclavian Artery
4. Impression for Middle Scalene Muscle

11th and 12th Neck, Tubercle, Angle, Ridge, and Groove, either indistinct or wanting altogether.

### II. Costal Cartilages.

2 Surfaces	Outer	Convex	
	Inner	Concave	
2 Borders	Superior	Concave	A distinct bend occurs a little after the commencement of the Cartilage
	Inferior	Convex	Implanted in cup at anterior end of Rib
Ends	Outer		Joined to Rib by Periosteum
	Inner	Narrower than outer end	Ends of first 7 joined to Sternum Ends of next 3, to each other Ends of last 3, free

Increase in length from the 1st to the 7th.  
Decrease " " " 7th to the 12th.  
Diminution in breadth from 1st to last.

### III. Sternum, developed in 6 Bony Segments.

3 Pieces after middle life	1. Manubrium = 1 Segment. 2. Gladiolus = 4 Segments. 3. Ensiform Cartilage = 1 Segment.
Entire Bone has 2 Surfaces	Anterior.—Convex, more or less arched, marked by indications of junction of segments Posterior.—Concave, marked less distinctly
2 Borders, right and left	7 Cups or Notches for Cartilages of first 7 ribs, each cup after the first, and excepting the 6th, being formed by 2 segments
2 Extremities, Superior	Episternal Notch, flanked by facets for Clavicles
Inferior	Of various shapes, being the end of the Ensiform Cartilage

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"SALUS POPULI SUPREMA LEX."

WEDNESDAY, AUGUST 5, 1874.

### EXAMINATIONS AT THE COLLEGE OF SURGEONS.

THE examinations at Lincoln's Inn have lately been the subject of comment in our pages, as well as in those of our contemporaries. Considering how often mishaps have befallen candidates, it is not surprising to find that at most of the schools of medicine the more zealous teachers are discussing the best methods of preventing future rejections.

The discussion has at times taken a decidedly personal turn, and at the late election to the Council we are aware that the voting was influenced by rumours as to this or that person being unduly harsh in the capacity of examiner.

Examiners of this kind are seldom altogether reliable, and we should regret any ground being given for their continual propagation; but, of course, it is impossible to prevent conclusions being drawn when unusual events occur in a certain definite direction.

Some of our anatomical teachers are known to have worked with more zeal than ever, and it is not unlikely that nearly all have done so. They have taken great pains, by examinations beforehand, to see that pupils did not go up until they were well prepared; and yet they do not seem to have been as correct in their predictions as might have been anticipated, and consequently they begin to believe in either unfairness or chance.

It has happened within our own knowledge for the best men of a batch to be plucked while the shaky ones got through, though at the same time we are free to confess that we have more frequently observed the industrious reap the reward of their work, and the idler sent back to his studies. Still, the mere fact that there is this appearance of chance in the matter shows that there are considerable imperfections in the method of testing a candidate's knowledge, and unquestionably the fact deserves the serious attention of the examining board.

In addition to the points to which we have previously drawn attention, we have good reason to believe that some good men have been rejected at Lincoln's Inn—and elsewhere too—through being ignorant of the mode adopted by the board. It is clear that method has much to do with the apparent readiness of a candidate's reply. If he had been led to believe that questions will take a certain form, and demand one kind of answer, it is obvious he may



be "taken aback" by abrupt interrogatories of another kind. For instance, a man who supposes full descriptions of parts to be expected, though full of knowledge, may not respond to the query "what's this?" by simply naming the organ shown, because he is arranging in his mind the order in which he will give a full description of it. We know one instance of this kind in which the examiner at once concluded that a candidate did not know the duodenum when he saw it, the candidate all the while thinking the examiner wanted far more than the simple name of the part when he inquired what it was. For this reason we have always advised students to bear in mind the nature of the examinations at the several boards, and we have always held that such knowledge is essential to success unless to the most brilliant men. It is for this reason that the Universities publish full instructions in their calendars, together with the questions set from year to year. No such guides, however, are published by the Colleges. For this reason we have advised students to read the chapter on the subject which forms the appendix to Gant's "Science and Practice of Surgery," and which we know to have been useful to many. Considering this, and the use of University calendars, we are glad to find that Mr. Gant has issued his remarks in a separate form, and very much extended them. The new book will be found a useful one to candidates, for the questions of the last five years are included in it, as well as a brief description of the specimens, preparations, and instruments used, and the arrangement of the examination-room. Nothing can be more reassuring to a nervous man than the power of anticipation of the kind of test to which he has to be subjected, and Mr. Gant's new "Guide to the Examinations at the Royal College of Surgeons of England" seems to us a most legitimate means of preparation. Of course, like other aids, it may be used to "cram" for the occasion by idle men, but they would find it of little value for their purpose; while diligent students will find it of real use, as it will enable them to test themselves, and they may easily extend their examination of specimens and instruments beyond the lists contained in the Guide.

## Notes on Current Topics.

### The Vice of Drunkenness.

THE state of Dublin just now, as to the habits of the lower orders, has been the subject of considerable comment in the daily papers during the past week, indeed, the tragic occurrences which have excited them could not fail to have had their effects. We find a fine girl in the prime of life dying at Mercer's Hospital from the results of a wound inflicted by her own father, so severe in its nature that it would appear from the report of the surgeon's evidence it was "a hopeless case from the beginning," and such was the loss of blood that the girl is stated to have died of "want of supply of blood to the brain" even at the end of seven days after the injury, by which it appears the common carotid artery and jugular vein were severed. Again, we find at the same hospital a case of a woman burned to death whose husband exhibited such unusual signs of barbarity and hard-heartedness that the coroner was moved to

notice it specially, and it would appear from the evidence that it was possible, if not probable, he put her out of the room in her burning clothes, and took no further trouble. Lamentable and chronic drunkenness seems to reign supreme amongst the lower orders, cleanliness is wholly unknown, rags and squalor are so habitual that they do not excite even shame: the Monday police reports testify but too largely to these debasing facts; it is not uncommon, we believe, to trace the sufferers from pewter-pot, and other engines of carouse assaults, to our accident hospitals by the blood that flowed from their wounds. The magistrates are commencing a more stringent course of punishment, and are enforcing the extra correction which the law allows to habitual drunkards. Last week the establishment of Temperance Hall, or Public House, was inaugurated; but this is, we believe, but mere surface work: the facilities for obtaining liquor by the lower orders are altogether too frequent. The large number of spirit-grocers who are allowed in addition to the regular public-houses is altogether out of ratio to the population; we are satisfied that the former are the more injurious and deadly to the people, as under the appearance of an ordinary business premise tippling, as it is styled by our police reports, is encouraged, add young men and women who might hesitate at entering the regular "public" and tap, are insidiously led on into habits of dissipation. From all we hear, we cannot but believe that there is ample room for the excise and police to exercise increased supervision in this respect, and come down sharply on such offenders as are pretty well suspected, if not actually known.

### The Working Man's Dwelling.

MR. SECRETARY CROSS fulfilled a promise made to the House early in the session when Mr. Kay-Shuttleworth moved a resolution with regard to the great necessity of improving the dwellings of the labouring classes in this vast city. The right hon. gentleman then declared that "no question out of the whole range of those which were likely to come before the House was nearer and dearer to his heart," and that he was anxious to introduce a measure with the view of securing to the working classes of the metropolis dwellings equal to those in other parts of the country.

A recent attempt of the Midland Railway to disturb the dead as well as the living, and thereby acquire the burial ground of St. Pancras, has been a means of indirectly contributing to the adoption of a new set of standing orders, which will be the means of compelling every committee of the House to see that when labouring people are about to be displaced new dwellings are provided, or at all events, that the remedy for the evils mentioned shall be at the discretion of the House.

The following resolutions to the effect were moved by Mr. Cross, and adopted by the House, on Thursday last:

1. In the case of any Bill for making any work, for the construction of which power is sought to take in any city, town, or parish, fifteen houses or more occupied either wholly or partially as tenants or lodgers by persons belonging to the labouring classes, the promoters be required to deposit in the Private Bill Office on or before the 31st day of December, a statement of the number, description,

and situation of the said houses, the number (so far as they can be ascertained) of persons to be displaced, and whether any and what provision is made in the Bill for remedying the inconvenience likely to arise from such displacement, and that such statement be referred to the committee on the Bill.

2. In every such Bill a clause be inserted to enact that the company shall, not less than eight weeks before taking any such houses, make known their intention to take the same by placards, handbills, or other general notice placed in public view upon or within a reasonable distance from such houses, and that the company shall not take any such houses until they have obtained the certificate of a justice in England and Ireland, and of the sheriff in Scotland, that it has been proved to his satisfaction that the company have made known their intention to take the same in manner required by this provision.

3. In every such Bill a clause shall be inserted, if applicable, requiring the promoters to provide, within the time limited for the completion of the work, sufficient accommodation for the persons belonging to the labouring classes who will be displaced by improvements authorised by the Bill.

4. The committee upon every such Bill shall report specially to the House—1. Whether such Clauses have been inserted in the Bill; and, if not, the grounds upon which the committee have decided them to be inapplicable. 2. The several circumstances affecting the displacement of houses by the operation of the Bill, and the means by which other accommodation is to be provided for the persons to be removed.

### Flogging Schoolmasters.

WE have unfortunately had occasion far too frequently to notice a tendency in the modern Squeers to an excessively cruel use of the rod. Whether this in any way arises from the high temperature and a consequent overheated state of the atmosphere in which schoolmasters live and move and have their being, we are quite unable to say; we, however, can scarcely conceive it possible for a properly-balanced mind, or an highly-educated man, and after due time for reflection, standing over a boy and administering 88 strokes on the bare back—such a flagellation, in fact, that ten days afterwards a surgeon “found evident marks of the severe infliction.” The head-master of Shrewsbury School is a lucky man to meet with judges who find him “*not guilty, but advise him not to do it again*”; and recommend that for the future punishments should be more in accordance with public schools.”

If a severe and uncalled-for flogging, meriting a proper rebuke from the governing body, was not inflicted upon Jeffery Loxdale, we should be glad to be informed what, in their opinion, is a severe flogging? and, as our contemporary the *Echo* observes: “Considering that young Loxdale’s offence was neither cruelty, nor theft, nor falsehood, nor any other heinous or disgraceful moral offence for which severe expiation might be deemed befitting, but only the breach of school discipline involved in having ate and porter conveyed to his study (we are not even told that he drank too much of either), and considering further that his father had brought him to make full apology to Mr. Moss, and had left him under the impression that his fault was condoned, we are somewhat at a loss to guess what amount of knouting Mr. Moss would inflict as retribution for a real sin.”

### Hospital Sunday in America.

THE Hospital Sunday movement appears to have taken a firm hold of the American mind; and we read in the *Boston Medical Journal* that the distribution of the Hospital Sunday Fund by the committee appointed was as follows:—

Massachusetts General Hospital	...	...	\$4,531.74
Carney Hospital	...	...	862.84
Massachusetts Homoeopathic Hospital	...	...	571.02
Channing Home	...	...	574.16
House of the Good Samaritan	...	...	971.42
St. Elizabeth’s Hospital	...	...	555.72
The Children’s Hospital	...	...	1,147.27
St. Luke’s Home for Convalescents	...	...	641.45
New England Hospital for Women and Children	...	...	1,146.79
Massachusetts Charitable Eye and Ear Infirmary	...	...	916.79
Boston Dispensary	...	...	829.92
Charlestown Dispensary	...	...	265.00
Dr. Cullis, Consumptive’s Home	...	...	90.00
Dr. Cullis, Cancer Hospital	...	...	200.00
Boston Lying-in Hospital	...	...	5.00
Children’s Mission	...	...	.60

Total ... .. \$13,309.96

The above distribution of the general fund is based on the number of weeks of board and treatment given gratuitously by the hospitals during their last financial year. The last four-named institutions on the list were the recipients of special contributions alone.

We learn that the amount of the London collection exceeds £29,000.

### A New Mode of Lighting Railway Carriages.

OUR contemporary the *Engineer* furnishes particulars of a new invention whereby railway carriages may be effectively lighted with gas on the longest journey. The chief difficulty hitherto has been that of storage, and even where, as on the Metropolitan Railway, the journeys are short, the impossibility of guaranteeing the gas against mixture with air, which seriously impairs its lighting power, considerably diminishes its superiority over other agents. For long journeys, the ordinary gas reservoir would be too cumbrous, and if this defect is met by the device of pumping the gas into strong retorts under pressure, so as to carry it in a smaller space, coal gas deposits carbon, loses nearly all its lighting powers, and has a way of escaping through what are called air-tight vessels. To Pintsch, of Berlin, belongs the honour of having overcome these difficulties. He abandons coal gas altogether, and makes his gas from oil. He packs it in iron retorts at a pressure of 90lb. to the square inch, and supplies it to the lamps through a very ingenious regulator. Some Continental railways have already adopted this system of lighting. In England an experimental carriage has been fitted with it on the London and North-Western Railway, and has been running some weeks. The carriage carries gas enough in a receiver, made of wrought iron  $\frac{3}{4}$ in. thick, 5ft. 10in. long, and 1ft. 4 $\frac{1}{2}$ in. diameter, at five atmospheres pressure, to run twice to Holyhead and back, sufficient gas being left for a further run to Chester, if necessary. In other words, the

carriage carries gas for over 1,000 miles. It may be imagined that the gas would waste away, or lose its illuminating power during so long a run, but this is not the case. The oil gas used is of nearly forty candle-power, and the light given in the carriage is nearly double that given by an oil lamp, while, as regards cost, this is about 70 per cent. cheaper than oil.

### A New Method for the Enumeration of Red and White Blood-Corpuscles.

M. L. MALASSEZ lately described in the *Archives de Physiologie* a method of counting blood-globules by means of certain apparatus devised by himself.

For the purpose of examination the blood is diluted with an artificial serum, composed of one vol. of a solution of gum arabic of specific gravity 1020, and three vols. of a solution of equal parts of sulphate and chloride of sodium, also of specific gravity 1020. The pipette, of a peculiar construction, called the "mixer," in which the blood and artificial serum may be mingled in any desired proportion with great accuracy, is figured and described at length by M. Malassez. For examination under the microscope a capillary tube of known volume is soldered to a glass slide, and by the aid of an eye-piece micrometer of peculiar construction, also devised by M. Malassez, and described by him in the same number of the *Archives*, the number of globules to a given volume of blood is rapidly and accurately estimated. In ascertaining the proportion of red globules the blood is mixed with artificial serum in the ratio of 1 to 100 or to 200, but in the case of the white globules the ratio of blood to serum is as 1 to 50. It is in estimating the latter that M. M.'s method is more accurate than others.

### Hinged Short Forceps.

MR. FRANCIS VACHER, in a paper descriptive of, and remarking upon, a new form of midwifery forceps, stated in last year's vol. of the *Liverpool and Manchester Medical and Surgical Reporter*, that, though convinced the principle on which his own instrument was constructed was sound, he could not pronounce it perfect. In a note communicated to the new vol. of the same series he tells us that in the course of the first delivery it accomplished, one defect, viz., the position of the button commanding the steel snap, became apparent, and since then two other flaws in the original design have discovered themselves, one, the instrument's extreme shortness, and the other, its want of some modification which would enable the operator to unlock and withdraw the blades without previously returning them into the hollow of the sacrum. These three imperfections have, with the kind assistance of Messrs. Weiss and Sons, whom he personally consulted on the subject, been corrected. The catch which locks the blades when *in situ* is now controlled from the end of the half of the handle attached to the upper or outer blade instead of from the front of the half the handle belonging to the lower blade, so that with the new instrument there is no possibility of the operator involuntarily unlocking it by the pressure of the palm of his hand during traction.

Secondly, inasmuch as this forceps is intended for effecting delivery of the head when in the pelvic cavity, no less

than when it has in great part passed through the outlet, it has been found necessary to increase its length by removing the clams a little further from the handle by the introduction of strong shanks an inch and a quarter in length.

Thirdly, it having been pointed out that, should delivery prove impracticable after traction had been sufficiently long tried, it would be an advantage to be able to separate the blades, and remove them right and left in the ordinary way, the hinge rivet has been fitted with a head to allow of its being readily drawn.

The inventor believes that the new pattern is the smallest, lightest, and most portable short forceps devised.

### Irish Pauperism.

It appears from the Annual Report of the Irish Local Government Board that the increase of nearly 3,000 persons in the pauperism of Ireland (as represented by the admissions to workhouses), in the year 1873 has disappeared since this time last year, and the country has returned nearly to its previous condition. The number of workhouse inmates on a selected day in 1873 was 54,125; in 1874 it was 51,161.

The Board attributes this fluctuation wholly to the wetness of the season 1872-73, and the injury done thereby to the potato and turf harvests.

### Deaths in Irish Workhouses.

THE total number of deaths in the workhouses in the last year has been 11,801. The total number of deaths for 1872-73 was 11,672, which, compared with the present numbers, shows an increase of 129 of deaths, and an increase of 1,218 compared with the number in 1871-2.

The number of deaths by fever is 663 in comparison with 655 in the previous year, and with 678 in the year preceding.

It will be seen that 110 deaths from small-pox have taken place in the workhouse hospitals of Ireland in the course of the year 1873-74 in comparison with only one single case recorded for the year 1869-70, and with only 13 in the year 1870-71. In the following year, 1871-72, the number was 462, and in 1872-73 it was 677, the epidemic having prevailed during a portion of each of these years.

### New Use for Nitrate of Amyl.

THE *New York Medical Journal* contains an important case in which this drug was tried on a patient who seemed dying. We extract the particulars:—

I. H., aged thirty-two years, labourer, entered the service of Dr. E. G. Janeway, at Bellevue Hospital, on May 27th, 1874. The history obtained was to the effect that, during the summer of 1872, he first noticed his eyelids to be puffy, and his feet swollen. He continued to work, however, until five months before admission, when increasing debility, complicated with dyspnoea, palpitation, and loss of appetite developed. When admitted, the patient was anæmic, very pale, and stated that his urine had been suppressed for forty-eight hours. His feet and legs were very œdematous, and the rest of his body to a slighter extent. There was increased area of cardiac dullness, with a double murmur over heart anteriorly and posteriorly, with the qualities of a friction-sound of cardiac rhythm. There were also evidences of slight œdema of the

lungs. The catheter removed only a few drops of urine from the bladder. Dry cups were applied over the lungs and kidneys, and half an ounce of infusion of digitalis, with half a drachm of acetate of potassa, given every four hours. The next morning the dyspnoea was improved, and about four ounces of highly-albuminous urine passed. About noon Dr. Janeway saw the patient for the first time. He was then unconscious. Pupils dilated. No response on touching the conjunctiva. Complete loss of pulse at the wrist, and breathing of a spasmodic character, such as occurs a few minutes before death. Some nitrite of amyl was obtained, and inhalations of five drops, cautiously increased to twenty-five drops, commenced. After the use of twenty drops, the pupils began to contract, and winking resulted from touching the conjunctiva. The pulse now began to be felt at the wrist. With the use of the last five drops he returned to consciousness, and the pulse at the wrist became full. He was now able to speak, and asked how long he had been faint, and whether or not he would pull through. The inhalations were now suspended, and half an ounce of brandy administered. A man was stationed at the bedside to notify the house-physician of the least approach of dangerous symptoms. In about fifteen minutes another attack occurred, and by the time the physician approached him he was dead.

There can be no doubt that in this case the amyl produced the temporary restoration from all but death, and the subsequent death in so short a time showed the gravity of the case.

This temporary restoration might be at times of great value, and, in a case where the lesions were not so serious, might be prolonged into cure and permanent recovery.

Dr. Janeway has not read of any case in which such a near approach of death was warded off, and is of the opinion that, as a rule, it would not be judicious to give such large doses; but, from the fact that a certain amount remained on the towel, it is difficult to say how much in reality the patient inhaled. He does not believe that the nitrite would prove equally serviceable in cerebral hyperæmia producing unconsciousness, the case under observation being one of cerebral anæmia, with failure of the heart's action from pericarditis.

*Autopsy.*—Lungs cedematous, with slight hydrothorax. Heart normal in size. Pericardium coated with fibrinous exudation of considerable amount. The sac contained a small quantity of serum. A microscopical examination of the tissue of the heart showed evidences of fatty degeneration in the portions beneath the pericardium. Liver, fatty. Kidneys, of the large, white variety. Evidences of fatty degeneration, with increase of connective tissue. Cortical part of the kidneys anæmic. On one side there was a hydrocele.

### The Adulteration of Beer.

DR. SEDEJACK gives the following in the *Journal of Medicine*, Brussels:—

According as beer consumption increases, so does its adulteration; this has hitherto been done in secret, but now no difficulty is made, for a *fabricant* of the adulterations now publicly announces himself. M. Rosendorf has recently sent round a circular to the brewers, both native and foreign, to whom he recommends his “*bier succédané*,” or his *bier surrogats*. He particularly recommends his grape-sugars as being economical of the malt, glycerine to correct tartness, and concentrated bisulphite of lime to prevent secondary fermentation and acidification, as well as to render beer, when turned sour, equal to its original condition; to clarify the beer he offers an assortment of tanning substances, and also to give it a concentrated tinge.

To give Bavarian beer the peculiar “bouquets” of various manufactures, he recommends tartaric acid, syrup of beet root, &c., and to crown the work he offers to

communicate to his correspondents (under guarantee of secrecy) how practically to elude extra duty.

At Munich the use of hops is getting less from day to day, and these adulterations seem to exercise a most deleterious influence on the health of the population, for it is observed, since the invasion of cholera, that on every evening on which most beer is consumed there is a direct increase in the extent of the disease—thus, on Sundays and Mondays a regular increase is found to occur, with a corresponding rise in the death-rate.”

### Modified Syphilis.

SURGEON-MAJOR PORTER, the Assistant Professor of Military Surgery at Netley, has contributed a valuable note in this week's *Medical Journal* on the subject which was originally started by Mr. Morgan, of Dublin. In the pages of this journal, the remarks made and the testings given in detail by Mr. Morgan went to prove that a modified form of sore could be produced from females not at the time at all suffering from either a primary or a secondary ulcer, that this sore assumed on syphilitic subjects always the character of the soft type, which has been by some confidently asserted to be innocuous to the system. The dualists have had their day, and still contend for a straight-laced duality; Mr. Morgan contended this point, and argued that soft sores were frequently followed by constitutional signs; that they were the result of accidental inoculation from the discharges of constitutionally-tainted females, and that the symptoms which followed were usually of a milder type than those resulting from the true chancre, and were not associated with the remarkable and intense cachexia so often seen, and what is most important to note, required a modified form of treatment. In confirmation of these views Mr. Porter now gives the following *résumé* of his experience:—

“For many years after joining the profession, I was led away by the belief that there were two forms of primary venereal sores, “*infecting*” and “*non-infecting*”; the former followed by secondaries, the latter not so. After some experience in the army, at home and abroad, I found I was frequently disappointed in my prognosis; that some of the most simple sores, or excoriations, which healed in a few days with the application of cold water, were followed in due time by secondary symptoms of mild form, such as two or three coppery patches on the face and trunk, a sore throat, or cracking of the palms of the hands. Such cases completely upset my mind as to the doctrine of duality, and I came to the conclusion that, though I might almost to a certainty point out a sore which would be followed by secondary symptoms, yet I was unable to point to any simple venereal sore and say, this will not be followed by secondaries of some character.

“With regard to Mr. Morgan's theory, ‘that the vast majority of primary sores are not derived from sores, but from the inoculated discharges of constitutionally-infected women,’ I may state that when serving in Saugor, Central India, in 1865, the admissions into hospital in my regiment from venereal sores were numerous, and caused me much anxiety. At my suggestion, I was permitted to take into custody, for medical observation, the prostitutes (natives of the lowest type) frequenting the neighbourhood of the barracks and cantonments; I carefully examined them with a speculum, and sent those diseased to the civil hospital for treatment. These unfortunate women, it was well known, were the source of the disease among the troops; but I was surprised to find that nearly all suffered from a purulent vaginal discharge, and not from true syphilis, a sore being but seldom met with.

As a practical illustration of compulsory inspection he adds the following remarkable evidence:—

"The result of my endeavour to check the disease was satisfactory, as may be seen by the following figures: *Admissions*—January, 1865, 18; February, 19; March, 25; April, 22; May, 19; June, 4; July, 1. In the month of August the regiment left the cantonment in consequence of cholera. The system of supervision of the prostitutes was commenced on the 17th of May, and 15 of the 19 admissions during the month were prior to this date, 4 only having been admitted during the latter fourteen days. These figures, which I recorded at the time, and have now before me, may be found of some interest.

#### Popliteal Aneurism cured by Ligature, followed by the Reappearance of the Tumour. Cure by Injection.

M. CAUBY relates a case of aneurism the size of the fist, occurring in the popliteal space. He in vain tried cure by pressure and flexion. The patient, however, who was very intolerant of treatment, preferred ligature of the artery, which was performed at Scarpa's triangle. In a month the cure was complete, and he resumed work as an agricultural labourer. The swelling, however, reappeared in the ham, with a sense of fluctuation which was very distinct. Compression had no effect; so Mr. Cauby injected the perchloride of iron into the tumour; smart inflammation followed, and an incision was finally made into the tumour, which was found full of clots. There was no subsequent hæmorrhage, and the patient made a rapid cure.

#### The Pharmaceutical Conference.

THE programme of the Annual Conference, which commences next week, is as follows: The business and pleasure work of the meeting will extend over four days, commencing on the 5th and ending on the 8th of August. During the first three days there will be an exhibition of objects relating to pharmacy, in the rooms of the Pharmaceutical Society's house at Bloomsbury Square. This exhibition will be open on those days from ten in the morning until six in the evening.

On the evening of Wednesday next there will be a *conversazione* given by the Pharmaceutical Society, to which all members of the Conference are invited.

On Thursday the special business of the Conference will commence, as usual, at ten o'clock, with the election of new members, the reading of the report of the executive committee, and the reception of delegates. Then will follow the address of the President-Elect, Mr. T. B. Groves, and after that the reading and discussion of papers will be proceeded with.

In the evening of Thursday, the annual dinner of the members of the Conference and their friends will be held either at the Inns of Court Hotel or elsewhere, as may be found desirable.

On Friday, the reading and discussion of papers will be continued, and the election of officers will terminate the general business of the meeting.

On both these days luncheon will be provided in the upper rooms of the Society's house, between 12.30 and 2 o'clock, the local committee inviting all who attend the meetings to partake of it. In this way loss of time and trouble will be avoided.

On Saturday there will be an excursion from London to

Cliefden Wood and Maidenhead, to which provincial members of the Conference and foreign delegates are invited by the London members of the trade. A special train will convey the party by the Great Western Railway from Paddington to Great Marlow, where boats will be in readiness for continuing the journey by river through one of the most picturesque parts of the Thames valley, past Cookham Dean and Cookham to Cliefden, where, by the kind permission of the Duke of Westminster, the party can land, to ramble through the woods for a while, until it is time to return to the boats and proceed to Maidenhead Bridge, at which place luncheon will be provided.

#### JOTTINGS FROM JOURNALS.

Dz. HENRY MACCORMAC communicates to our monthly contemporary, the *Doctor*, a series of practical notes collated from various periodicals, and which he calls "Jottings from Journals." We take a few opinions from the last number:—

**CURE FOR CORNS.**—Wear sandals, or, like the Irish girls, go barefoot. The *Pacific Medical*, however, commends paring, and inunction with castor-oil. Avoid pressure, and no undue thickening of the epidermis can possibly ensue.

**BURN MIXTURE.**—Dr. Buck, of the Bellevue Hospital, dissolves 2 oz. gum tragacanth and 4 oz. of gum arabic in a quart of water; add a pint of molasses, and apply with a brush.—*New York Med. Record*.

**ARSENIC IN INTERMITTENT FEVER.**—M. Sistach, in a summary, states that he has treated by means of arsenic (*acide arsénieux*) in a very dilute form, as administered by the mouth and rectum, 229 cases—that is to say, 137 cases of quotidian fever, 73 tertian, 11 of quartan, 5 of irregular fever, and 3 of masked, and that all did well. The cases occurred at Bona, in Africa, and were reported upon by MM. Moutard, Martin, Bouillaud, and Chauffard on the part of the Académie de Médecine. In pernicious intermittent fever the treatment, as might be expected, was less successful.

**MARTIAL LEMONADE.**—Citrate of iron in plates, 1 gramme; syrup, 100 grammes; artificial seltzer water, 900 grammes.—*Le Mouvement Médical*.

**KAKKE KAKKE.**—A malady thus named, Dr. Hoffmann states in the *Japan Mail*, is endemic in Japan. It is sometimes attended with insensibility and paralysis, but more commonly trembling and debility. It disappears in winter, and is highly similar to Indian beri-beri.

**PILLS FOR CONSTIPATION.**—Take podophyllin 0.03 gr., honey 9—one dose.

**PERITONEAL ABSCESS.**—A remarkable case is recorded in *Le Progrès Médical* by M. Pasturaud, hospital intern. It was that of a peritoneal abscess between the liver and diaphragm. The contents penetrated into the right lung, and were evacuated through the bronchial tubes. The patient died. A post-mortem demonstrated the exact nature of the case.

**CORYZA.**—Dr. Prout, *New York Medical Record*, speaks in warm terms of the efficacy of 20 or 30 minims of the tincture of the perchloride of iron. His formula is—tincture, glycerine, of each up to 8 grammes, or say 2 drachms; a teaspoonful every two or three hours in a little water three or four times. He has obtained almost

immediate relief in his own case and the cases of his patients. He leaves off as soon as tokens of amendment ensue, and begins treatment as soon as possible after the onset of the coryza.

**PERSISTENT VISION.**—A curious case is related in a recent Italian medical journal. The circumstance was that of a medical man who, in the act of reading an article which greatly interested him, fell fast asleep. After slumbering for some time he awakened right up, and much to his surprise the article which he had been reading, the portion which had interested him, was impressed letter for letter, word for word, and line for line on the opposite wall. Similar occurrences have been witnessed from time to time, but rarely to so striking a degree as in the instance here adverted to.

**PERNICIOUS INTERMITTENT.**—In these countries we are happily almost exempt from intermittent fever, both simple and pernicious; but in certain so esteemed health-resorts both these forms of periodic malarious disease subsist, as many and many an Englishman and Englishwoman has experienced to their cost. There are attacks of pernicious intermittent well known both in Algiers and in Italy, in which the affected persons sink down as if stricken with apoplexy. The importance of a correct diagnosis must be obvious. In the *Giornale Veneto* Dr. Namias has described a case of this *febbre perniciosa apopletica*. The patient was plunged in complete coma, the limbs were motionless, and the left side quite cold. Leeches (*mignatte*) were applied to the mastoid apophysis, followed, as soon as the patient could swallow, with large doses, two in all, of the bisulphate of quinine. The subject left the hospital perfectly cured, a result which, unfortunately, is far from constant.

**TREATMENT OF GONORRHEA.**—There are practical remarks in the *France Médicale*, by Dr. Ferran, which are deserving of much attention. After some general observations on the treatment of this troublesome affection by means of what he terms substitutive irritation, he goes on to say that in order to obtain the most satisfactory results he employs cubebs and the balsams, not two or three times, but ten or twelve times daily. In this way there is commonly a steady amelioration of the symptoms, and in most cases a recovery in from twenty-two to twenty-six days. Dr. Ferran lays no claim to have discovered this treatment, which he has otherwise employed for a matter of ten years.

## A SECOND NOTE ON WINE.

In according to wine a certain share of our attention we follow not so much the course as the torrent of ideas; in this we yield to compulsion only, no way ambitious to display our taste or to spread the contagion of a fancy. The amount of space devoted to the subject by one of the ablest of our contemporaries might be thought to cover the whole field, and yet so evidently but a share of it; and who shall exhibit the remainder? The inspiration is evident enough. To lift us out of the old groove a powerful wrench has been contemplated, the force of rhetoric has not been spared any more than its *finesse*; a good deal besides is left unsaid, to be furnished by the intelligence of the reader. This is so apparent throughout as scarcely need be hinted at. A new commercial phase is entered on. New things require their interpreters, and ancient habitudes must stand on one side for passing fashions; to help the weak, to wage war upon the strong, the original starting point and a generous thought in the main have a little too much possessed our contemporary, impairing the criterion of his palate. On the part of the public the response is tardily given. Our wine merchant's list shows still a conservative bias; he is evidently no convert to the wine *versus* alcohol doctrine, but leans upon the old ideas,

and price serves still as a pretty fair index to quality. The gentle housewife still demands her sherry regardless of its calcareous ingredient. The pernicious fluid holds its own remarkably well, in no danger of being ousted by any article. For our hospitals and public services we observe the wine in request continues to be port and sherry, with no kind of fear, it is said, of their being supplanted by novelties or seriously injured by competition. These institutions are not precisely the best field in which to adventure an experiment or to exercise a more than fit economy. We remember some forty years since, in the days of high Customs duty, what excellent quality of wine used to be served in the hospital of our studentship, furnished by a first-class house, an excellent port—scarce any better have we tasted since, and none substantially better—the white wine perhaps in quality not so choice, but still very sound and good. Every way our hospitals then were on a more limited scale, since which time they have had extensive accretions in the way of wealth truly wonderful; but by the fatality that is peculiar to these institutions, the more they gather the more they are out at elbows, and always crying poor.

Certain it is that at the present time the wine furnished to our public services is of better class and quality and also of higher price than what finds its way into our hospitals; and some of these even condescend to Taragona or Catalan port, a wine which has this merit at least, that it gives a better profit to the vendor and leaves no shadow of obligation on the part of the institution. As to the British merchant of old type, one cannot speak too much in praise of the very liberal terms in which our hospitals have all along been dealt with. The error we have stigmatised above springs from the impenetrability of *paterfamilias*, who thinks it is impossible that a wholesome wine, genuine port, can be had at an equally moderate price with other wine of modern introduction. Accustomed himself to drink port at £60 a pipe in bond, from eight to eleven shillings a gallon, for such is the superior article to which the British householder is accustomed, he does not conceive that Oporto wine can be had at just half that price which answers all the purposes of health and convalescence—now, even so low as £25 per pipe—such port wine may be acquired and purchased at Oporto for £23—say four-and-sixpence a gallon, seven shillings with the duty paid, very little more than a shilling a bottle. But as to this half-crown duty, its removal is only a question of time; equalisation of duty is imminent, demanded by policy, national and commercial, as well as by common sense; we shall then look to enjoy to a fuller extent the benefit which has already accrued to public health in the increased consumption of wine. But the prices such as have been named above are the terms on which it will be furnished by the Douro trade. When enterprise has further opened main channels of commerce in Portugal agreeably to data furnished in our issue of June 3rd, we shall have a competition from that country of wines both red and white, which will be perfectly on a level with public taste and find a great future before them. Among the wines as yet introduced in the recent epoch of lower alcoholic strength under favour of the one shilling duty, some we have tasted are very excellent and enjoyable, but for the most part, by some fatality on inquiry, they have been rather dear, and in spite of the relief in duty the wines of a higher class we have found not cheaper or better than those of the olden time. This is our every-day experience. It is also possible to accustom oneself to the bad until the palate no longer endures or acknowledges what is good; in short, the hour seems not yet to have arrived in England when we may find wine choice and cheap. But under the change we are contemplating, that of the abandonment of an oppressive duty, that is to say, the emancipation of partial restrictions, if we may judge of the future by the past, no sudden convulsion need be feared. Those in possession will long enjoy the advantage of the ground they have acquired, for neither are our social tastes so pliable, nor is commerce so adventurous and bold as assertion might lead us to believe.



## Correspondence.

### ON THE THEORY OF COUNTER-IRRITATION.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—In an otherwise excellent paper on this subject in the *Practitioner* for March, 1874, Dr. James Ross advances the theory that counter-irritants act beneficially, not by drawing away any diseased influences from the affected part, nor as antiphlogistics, in the ordinary sense of the word, but always by conveying a stimulus to the diseased part, either by sympathy or contiguity. As the only surviving editor of Dr. Fletcher's works, will you allow me to call attention to the fact that this is substantially the same rationale of the action of these agents as was always taught by Dr. Fletcher in his class, and is given in his "Elements of Pathology, 1842," as the following extracts will show:—

"It is absurd, then, to continue to talk of counter-irritation in the sense, at least, in which the word is generally used, to signify the withdrawing an irritation from an inflamed part by exciting an irritation in another. There is no known law in the economy which justifies us in supposing that such is ever the case, and if it were, the remedy would infallibly increase, instead of alleviating a disease consisting already in a state of minor irritation. But independently of all theory on the subject, what are the conclusions to be drawn from every-day experience? When the seat of the inflammation is one to which we can immediately apply our medicines, as in cynanche tonsillaris, gonorrhoea, ophthalmia, and skin diseases, are the most effective gargles, injections, collyria, &c., usually such as excite or such as depress? and are the other direct remedies to which we have recourse with the greatest benefit in deep-seated inflammations, such as heat, electricity, acupuncture, &c., of a stimulant or sedative character? Now, is it not absurd, when we see that direct remedies of inflammation are always such as to communicate, not withdraw irritation, to continue to presume that indirect remedies, or reputed revulsives, such as emetics, purgatives, diuretics, errhines, sialogogues, diaphoretics, and in particular epispastics, are such as to withdraw, not communicate it? They all obviously act in the same way, and the effect of each class of revulsives in bringing the action of the dilated capillaries of each organ up to the line of health will of course be great or inconsiderable in proportion as the specific character of the new irritation is well or ill-adapted to the specific irritability of these vessels, and as the sympathy which subsists between the organ to which the revulsive is applied and the seat of the primary irritation is intimate or the reverse."

I do not in the least mean to make a charge of plagiarism against Dr. Ross, who, I have no doubt, was quite unaware of having been preceded by Fletcher. But in justice to the memory of the latter, I bring this forward now, and I endeavoured to do so in the *Practitioner*, to which a very short article with the above and another extract were sent immediately after the appearance of Dr. Ross's paper. The editor of that periodical has, however, refused to insert it, for what reason I do not know; but it is to be hoped he will be able to justify his refusal, as I find since that he has also claimed the priority of the above theory when reviewing a former work by Dr. Ross.

I am, Sir, your obedient servant,

JOHN DRYSDALE, M.D.

Liverpool.

### ESTIMATION OF TOTAL NITROGEN IN URINE.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—Although I did not intend to trespass on your valuable space again, and that I stated I had neither time nor inclination to pursue a chemical controversy on the determination of the actual amount of nitrogen in the urine, yet, as Professor Reynolds thinks my zeal for the merits of my countryman Dr. Davy was in excess of my discretion, you will, I am sure, pardon the use of my pen again, to give a *résumé* of the subject so as to allow competent judges to decide whether Professor Reynolds' process was in unison with its professed object; probably, had I not forgotten that Professor Reynolds was himself an authority (as a discoverer), I should have been more diffident with offering any remarks to a Nestor of Ureal

Science; but, having been in my early days a pupil in the late Professor Davy's laboratory, and knowing the many papers his son, Dr. Davy, had contributed to chemical science, published in different scientific journals, I felt that what Professor Reynolds states as a rough and ready method for the determination of nitrogen in the urine was just the method that superseded Professor Reynolds' process; and therefore I thought his paper on the subject as a quick and easy method for the practising physician was a work of supererogation. *Imprimis*, the process which Professor Reynolds has brought forward for the estimation of the nitrogenous contents of the urine as one that "was exceedingly simple and expeditious," and by which, as he stated, "we can easily and quickly determine, with very exact precision, the quantity of nitrogen removed by the kidneys," by his bringing it before the Surgical Society we may reasonably infer he considered it as applicable to the wants of the medical practitioner.

Considering that the proposed process fulfilled very imperfectly any of these ends, which were, as I conceive, fully attained by Dr. Davy's method, which I had employed for several years, I pointed out in my first letter on this subject in the *MEDICAL PRESS* some of the objections to Professor Reynolds' process—viz., that its first stage, in which the nitrogen of the urine was converted into ammonia by the adoption of Will and Varrantraf's well-known soda-lime process, had been recently shown by Seegan and Novak not to yield correct results as to the amount of nitrogen in different nitrogenous bodies, and I objected to the estimation of the ammonia so produced by the degree of colour imparted to Nessler's test for that substance, and that the details of the entire process could not be carried out with any degree of success except by one well skilled in chemical manipulation, and would be subject to the gravest errors, unless the most scrupulous care were paid to the different parts of the process, thus rendering it quite impracticable for the medical practitioner.

Professor Reynolds, as a reply to these objections, directs attention to a point in his preliminary treatment of the urine—viz., the addition to it of sulphuric acid before evaporation and combustion with soda-lime, and infers that I had exhibited a great want of chemical knowledge in not referring to this point, which I considered to be quite irrelevant, as it would, I maintain, add but little to the accuracy of the soda-lime process, and, as regards my objection to his method on account of its requiring a considerable amount of manipulative skill, in addition to its not furnishing correct results, he merely says: "I venture to think that this (process) is sufficiently convenient in practice, while it affords results which are but little, if at all, below the truth."

It would have been more satisfactory if Professor Reynolds had given a direct answer to the objections made against this process, and had stated the probable amount of time required to make a determination by it, and had given us the results of his analysis to show its accuracy.

In my second letter I pointed out that Professor Reynolds had passed over without comment the observed inaccuracy of the soda-lime process, on which his method of estimating the nitrogen of the urine was founded, and I still urged my objection to "the depth of the brown tint" produced by Nessler's test being taken as the means of estimating the amount of ammonia furnished in the first stage of his process, it being an unreliable method of quantitative analysis, which could only give results on which any dependence might be placed when obtained by those in the constant practice of such colour examinations.

In reply to my second letter Professor Reynolds at length admits "the fact (as he says) well-known to chemists, that the soda-lime process does not necessarily give the total nitrogen in organic bodies," but points to his "preliminary treatment of urine with sulphuric acid as being specially directed and sufficient to meet the difficulty;" but he offers no proof whatever that it does do so, though I am quite willing to admit that it may tend to fix any ammonia that may be present in the urine, and may aid in breaking up the organic matter; but there is no evidence to show what its action may be, under the circumstances, on the various nitrogenous constituents or matters that may exist in the urine; and I do not see how this "preliminary treatment," consisting as it does in the addition of "a drop of sulphuric acid" to the quantity of urine taken, and the evaporation of the urine "to a small pasty residue" in the form of combustion tube which Professor Reynolds suggests, could make so easy and expeditious such an organic analysis which, "under ordinary circumstances," as he states in his original communication, "can

only be made successfully by a person possessing some skill in one of the methods of organic analysis." But I would say it was rather injudicious of Professor Reynolds to base a method for the determination of nitrogen in the urine, which he recommended for the use of the medical profession, on a process that has recently been shown by several experimenters to be untrustworthy, and those who have endeavoured still to uphold its accuracy have shown that very great precautions are necessary to be taken that it may yield results approaching correctness, and two of these necessary conditions are not fulfilled in Dr. Reynolds process (first of which is), the most intimate mixture of the substance with the soda-lime, which obviously cannot be effected by mixing it with (as Professor Reynolds suggests) "the small pasty residue of the urine" after evaporation in the combustion tube; and then, after such imperfect admixture, he directs that "a strong heat" be applied to the mixture. Now, it has been shown that one of the great sources of error in the soda-lime process is the application of too strong a heat during the combustion, as it occasions the loss of ammonia by decomposing more or less of that substance.

Now, as regards what I have termed Dr. Davy's simple and beautiful method (the utility of which I have so upheld in this correspondence), Professor Reynolds, to prove that the assertion he made respecting its inaccuracy in a former letter was well founded, refers in his last to the *Chemical News* of June 12, 1874, where will be found a notice of the proceedings of the Chemical Society of London of the 4th ultimo, at which Dr. Russel and Mr. West brought forward a simple method of estimating urea in urine which might be employed in the wards of an hospital, the reaction attendant on which usually occupies, as they state, about ten minutes, and which, being merely a modification of Dr. Davy's original process, using hypobromite instead of hypochlorite of soda, and a rather complicated apparatus instead of his simple graduated tube, tends, in my opinion, to establish its value.

These gentlemen, however, state that in using this modification "it is found that the amount of nitrogen given off from a given weight of urea is about 8 per cent. less than the theoretical, but by a curious coincidence the corrections which would have to be made for the reduction in the volume of the gas for aqueous vapour and a temperature of 65° F. compensate for this," so that this source of apparent error, according to their observations, is practically of little moment.

Professor Reynolds, however, with what seems to be a want of fairness, has dwelt on the 8 per cent. of loss observed by these gentlemen, whilst he has taken no notice of their further results, which show that such loss, if it really exists, is compensated for. But be this as it may, as regards Mr. West and Dr. Russel's modification, I find, on referring to Dr. Davy's original paper on the estimation of urea, that the amount of gas obtained from a given weight of that substance differed only by a few thousandths of a part of a cubic inch from the calculated quantity that should be furnished, being a difference so small that it might be practically disregarded, and fairly attributed to the unavoidable sources of error that appertain to almost all analytical operations. I also find that there exists a very close agreement between the results which Dr. Davy obtained in some comparative estimations he made of urea in different samples of urine, employing Liebig's and his own method, which also shows its accuracy. But, if further proof be thought necessary as to this point, I may refer to the "Handbook for the Physiological Laboratory," a work published last year, in which Dr. Lauder Brunton, one of the authors of that treatise, in speaking of Dr. Davy's method, says, at page 551: "The writer can vouch, from personal observations, of the great accuracy of this method where applied to solutions of pure urea, and believes that if carried out with the apparatus devised by Dr. Hüfner for the determination of urea by solutions of alkaline hyperbromites, it would prove the most useful and reliable method for the determination of urea."

I have now concluded my *résumé*, as well as replied to Professor Reynolds' last remarks, and trust my review has been an impartial one, although Professor Reynolds, having admitted the inaccuracy of the soda-lime process, the basis on which his test has been founded, I might have offered that as a sufficient reply to any objections made against Dr. Davy's test, which, resting as it does on the unerring laws of chemical science, cannot be subverted by any hypothetical idea (however plausible), and as I do not intend again to recur to the subject, I leave to those conversant with chemical subjects to decide how far Professor Reynolds' experiments have tended

to the advancement of chemical science or the edification of the members of the Surgical Society, and to remind him that the didactic style of writing is better suited for the school-room than for the members of a learned profession.

Apologising, Mr. Editor, for such a trespass on your space,  
I am, your obedient servant,

R. AUSTIN, M.D., Medical Analyst.

5 Cullenswood Terrace, Ranelagh.

[We cannot see that the controversy need be further extended, Dr. Reynolds' right to reply being, of course, conceded.—Ed. M. P. & C.]

## REFORM OF EXAMINATION IN THE IRISH COLLEGE OF SURGEONS.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—The remarks made at the General Medical Council will, it is to be hoped, be of service in directing the attention of the Irish College to amending the method of examination, though we must admit the language used was in no measure authorised by the report of the visitors, who did not insinuate that the mode of examination was purposely intended to allow inferior candidates into the surgical arena of practice, but that the detail of carrying out the testings might be improved; this has been admittedly a "bone of contention" with the Council of the College for a considerable time, I believe as far back as 1870. Various reasons have retarded the application of the revised system, which would have been open to none of the objections made by your late correspondent. Timidity and procrastination seem principally to have influenced, while outside interests were put in motion to upset the coach of reform. Now, Sir, while the verdict returned to the Irish College of Surgeons was passed by a jury and judge of those opposed in interests and nationalities, there are suggestions besides those which might be taken as a "slap" at the Irish, which deserve the consideration of the profession. They were well given in a London leader last week.

- 1st. The permanence of class examinations by the various professors, and the certifying of their being satisfactorily attended.
- 2nd. That the area of examination on the secondary professional subjects of botany, zoology, chemistry, and materia medica should be limited and defined.
- 3rd. The presence of two examiners, or of one and an assessor at each clinical and oral examination.
- 4th. That the examination on any subject should not be conducted either wholly or in part by the teacher of the candidate on that subject.

Now, Sir, these seem reasonable recommendations; they have often been alluded to before, and on various occasions, and something should now be done. As stated in a recent issue, the most glaring impropriety is the last. It is not easy to know what the impression on the public would be if it were generally known; but I have seen even on the list of those to attend the examinations at the Irish College the names of private teachers, or "grinders," who might attend the examinations of even their own private pupils, and who are supposed by students to have the power of influencing the result of the examination. This certainly does not look well.

It is time now that action should be taken, and in the right direction, in rendering the examinations at the College as perfect as can be, and a model for others. When that is attained, surely the Medical Council must insist on the enforcement of a uniform testing throughout the three kingdoms.

Yours faithfully,  
F.R.C.S.I.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—Having been from home, I did not see the *PRESS* and *CIRCULAR* for two weeks. When I did, I was not surprised at the indignant reclamations which I found on the subject of the Examinations of the Royal College of Surgeons and the attack made on them by Sir Wm. Gull.

I feel quite satisfied that improvement in the examinations is

still required, and trust they will be made. I have long felt disgusted with the self-glorification of too many of my *confrères* in the College, who repeat the stories of the past, as if the same state of things existed as in the olden time, when the examination of the Royal College of Surgeons of Ireland was really in advance of most other institutions. Credit has not been given to other corporations for the improvements they have made, and we have not made progress even *pari passu*. I trust the hint will now be taken, and that the Council will do its duty in insisting on improved examinations, and getting rid of all obstructives, if such exist, as is hinted, amongst the examiners.

At the same time, I do not think that the pettish onslaught of Sir Wm. Gull was deserved, and take comfort in the knowledge that though highly esteemed for deep research in all the practice and science of the profession, Sir Wm. Gull is not so highly revered for the possession of good common sense. His escapade in connection with the post-mortem of the Emperor is not forgotten, and is a good gauge of the calibre of his mind in that essential qualification of full manhood: we need not, therefore, be too sensitive to his testy and ill-considered attack.

Let the Council proceed steadily in the path of reform. Let the examination be honest, searching, and calculated to discover the amount of the candidate's knowledge—not the extent of his ignorance. Above all, let it be practical, and not crotchety. Let "*fiat justitia*" be the motto of the examiners, and I have no doubt that we may still heartily exclaim "*Floreat Collegium Chirurgorum Dublini*," despite the nasty or ill-tempered criticism of any man who in his self-esteem may think that his word can make or mar.

I am, Sir,

Your obedient servant,

July 31, 1874.

F.R.C.S.I.

### CROUP.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—Will you or any of the readers of the MEDICAL PRESS AND CIRCULAR kindly inform me what is the probable earliest age for an infant to suffer from croup? I do not mean the spasmodic form of the disease; I allude to the true inflammatory kind, tracheitis. I have been always under the impression that from eighteen months till seven years was the usual period of life for the malady to show itself. I believe this is also the opinion of most physicians. After an experience of many years I *never met* in my practice the disease commencing *before the time above-named, or later than the age of nine*.

Lately, however, a medical friend informed me that in his opinion the disease may take place at any age, and that it is not uncommon even before six months old. I do not deny that such a thing may happen, but it is so rare that one, according to my idea, might say it never occurs at all. To elicit the opinion of other members of the profession on the subject I shall feel obliged by your giving insertion to this letter.

I remain, your obedient servant,

July 17, 1874.

L.K. & Q.C.P.

## Medical News.

Royal College of Physicians of London.—The following gentleman was admitted a Fellow of the College on July 30th:—

Druitt, Robert, Lancaster Street.

And the following gentlemen were elected members by ballot:—

Robinson, Frederick, M.D. St. And., Lupus Street.  
Liveing, Edward, M.D. Camb., Queen Anne Street.  
Blake, Charles Paget, M.D. Edin., Torquay.  
Carter, Thomas Albert, M.D. Edin., Leamington.  
Goodridge, Henry Frederick Augustus, M.D. Lond., Bath.  
Robertson, William Tindal, M.D. Edin., Nottingham.  
Gervie, Henry, M.D. Lond., St. Thomas Street.  
Crucknell, Henry Heanes, M.B. Oxon., Welbeck Street.  
Moore, William Whithers, M.D. Edin., Brighton.

Thorowgood, John Charles, M.D. Lond., Walbeck Street.  
Smith, Eustace, M.B. Lond., George Street, Hanover Square.

Lee, Robert James, M.B. Camb., Savile Row.

Green, Thomas Henry, M.D. Lond., Wimpole Street.

Bradbury, John Buckley, M.D. Camb., Cambridge.

The following gentlemen on the same day were admitted Members of the College:—

Barlow, Thos., M.B. Lond., Great Ormond Street.

Blanc, Henry, M.D. Montpellier, Rue de la Paix, Paris.

Donkin, Horatio Bryan, M.B. Oxon., Devonshire Street.

Edmunds, James, M.D. St. And., Savile Row.

Roper, George, M.D. Aberd., West Street.

Also at the same time the following gentlemen were admitted as Licentiates:—

Boase, William Francis Fookes, London Hospital.

Clarkson, John Wilkins, Surbiton.

Fyffe, Benjamin, Arundel Hotel, Arundel Street.

Gould, Alfred Pearce, University College Hospital.

Keates, William Cooper, Dulwich.

Lea, Julian Augustus, Charing Cross Hospital.

Leacock, Charles George, Colebrook Row.

Lloyd, Morgan, Guy's Hospital.

Mavor, William Samuel, Mountfield, St. Leonards.

Mawson, William Arthur, Dispensary, York.

Moir, Gerald Chetwynd Algernon, St. Mary's Hospital.

Newby, Charles Henry, Mecklenburgh Street.

Park, John Steele, Claremont Square.

Pyburn, George Wilkinson, University College Hospital.

Roe, Edward, St. Bartholomew's Hospital.

Seccombe, George Samuel, Bellefield Road.

Sturmer, Arthur James, Percy Circus.

Vawdrey, Theophilus Glascott, Kent Villas, Upper Lewisham Road.

Woods, David, St. Peterburg Place.

Royal College of Surgeons of England.—The following gentlemen, having passed the required examination for the diploma, were duly admitted Members of the College on July 24th, 27th, 28th, and 29th:—

Abbott, Charles Edward, Liverpool.

Armstrong, Henry G., L.S.A., Staines, Middlesex.

Badcock, John Henry, Abingdon.

Bathe, Henry Hearsey, Southampton.

Benton, Samuel, Southend.

Bernays, Sidney Adolphus, Brixton Hill.

Boulter, Harold Baxter, Hull.

Bromley, John Maddern, New Swindon.

Browne, George Buckston, Manchester.

Caddy, Henry, L.S.A., Alverston.

Clarke, Arthur, Brill.

Clarke, Henry, South Penge.

Clift, Martin Luther, Central Street.

Collins, Floyd, Ware, Herts.

Currie, Andrew Stark, M.B. Ed., Edinburgh.

Drew, Clifford Luxmoore, Exeter.

Evan, Llewellyn Wilson, Strand.

Foreman, Joseph, L.S.A., Wigan.

Fyson, Edmund, Blackfriars Road.

Giblin, Edward Owen, Hobart Town, Tasmania.

Harsant, William Henry, L.S.A., Epsom.

Hentsch, John Page, Broad Street.

Hopcroft, Thomas Fay, Bayswater.

Hutchinson, Joseph Bouch, Liverpool.

Hutchinson, Samuel John, Brook Street.

Jarrett, Michael Lewis, Sierra Leone.

Job, John, Redruth, Cornwall.

Johnson, Wm. Henry, M.D. Toronto, Guelph, Canada.

Jones, Arthur Henry, Peckham.

Jones, Charles Morgan, Aberdare.

Kemp, John Robert, Notting Hill.

King, Nathaniel Thomas, Lagos.

Little, James, M.B. Ed., Wigton, Cumberland.

Macready, Jonathan F. C. H., Gilston Road.

Manning, Charles James, Barbadoes.

Mason, Richard, L.S.A., Tenby, South Wales.

Mercier, Charles Arthur, Hackney.

Moody, James Matthew, Great Warley.

Morton, Richard John, Aylsham, Norfolk.

Perrin, Alfred Charles, Kensington.

Powell, Joshua, Newcastle-on-Tyne.

Pring, Peter Burnett, Festiniog, North Wales.

Quinton, Richard Frith, M.D., Enlwich.

Reynolds, Edward Osmund, Appledore, North Devon.

Roberts, Humphrey, Festiniog, North Wales.  
 Roth, Bernard M. S., Wimpole Street.  
 Smith, Henry B. L., M.B. Aberd., Berkeley Square.  
 Snell, George, L.R.C.P. Ed., Jersey.  
 Sturmer, Arthur James, L.R.C.P. Lond., Calcutta.  
 Swanwick, Eustace Maclean, Torrington Square.  
 Thomas, Robert Thomas, East Looe, Cornwall.  
 Trevor, Frank Wollaston, M.B. Aberd., Great Coram Street.

Turle, Arthur, L.S.A., Taunton.

Wilson, C. Wm., L.M. Durham, Newcastle-on-Tyne.

Wilson, Joseph Henry, Stamford, Lincolnshire.

Winckworth, Charles Edward, Great Bircham, Norfolk.

**The Czar's Bounty.**—The Lord Mayor has distributed the sum of £500 left with him for public charity by the Emperor of Russia, after his Imperial Majesty's visit to the City, as follows:—The Metropolitan Free Hospital, £100; the London Hospital, £50; the Dreadnought (Seamen) Hospital, £50; the Poplar Hospital, £50; the Shipwrecked Fishermen and Mariners' Society, £40; the City of London Truss Society, £25; the Society of Friends of Foreigners in Distress, £25; the Surgical Aid Society, £25; the Seamen's Chapel, £20; the Royal Alfred Aged Institution, £25; the Goulston Square Baths, £25; the City Dispensary, £20; the Finsbury Dispensary, £20; and the Victoria Hospital, £25. His Majesty the Emperor has sent to Colonel Fraser, C.B., the Commissioner of the City Police, a valuable ring, as a souvenir of his memorable visit.

**Royal College of Physicians of London.**—The following officers have been elected for the ensuing year:—Censors: Dr. Herbert Davies, Dr. J. W. Ogle, Dr. Habershon, and Dr. Garrod.—Treasurer: Dr. F. J. Farre.—Registrar: Dr. Pitman.—Harveian Librarian: Dr. Munk.—Examiners: (Anatomy and Physiology) Dr. George Harley, Dr. Church; (Chemistry, Materia Medica, and Practical Pharmacy) Dr. Thomas Stevenson, Dr. John Harley; (Medical Anatomy and the Principles and Practice of Medicine) Dr. A. W. Barclay, Dr. Sibson; (Midwifery and the Diseases peculiar to Women) Dr. John Clarke, Dr. Braxton Hicks; (Surgical Anatomy and the Principles and Practice of Surgery) Mr. Jonathan Hutchinson, Mr. G. D. Pollock.—Curators of the Museum: Dr. F. J. Farre, Dr. Peacock, Dr. W. Wegg, and Dr. Sibson.

**British Association for the Advancement of Science.**—The forty-fourth annual meeting of the British Association will commence at Belfast on Wednesday, August 19th, and extend over the following eight days. At the first meeting of the General Committee the President for the year will be elected, and the place of meeting for 1876 resolved upon. In the evening of Wednesday the proceedings proper will open with the annual address by Professor Tyndall, on assuming the Presidency. On Thursday evening there will be the usual *soirée*, and on Friday night a discourse will be delivered by Sir John Lubbock. The Saturday, as usual, will be devoted to excursions. On Tuesday there will be another *soirée*, and on Wednesday the meeting will be brought to a close. The sectional meetings will be held as usual. In mathematical and physical science Professor Jellett will preside; in chemical science Professor A. Crum Brown; in geology Professor Hull; in biology Professor Redfern; in geography Major Wilson; and in chemical science Professor Thomson will preside.

**The Apothecaries Act Amendment Act, 1874.**—We have received the following abstract of the "Apothecaries Act Amendment Act, 1874," of which we have already spoken:—

"The first section enacts that the Act shall be cited as the 'Apothecaries Act Amendment Act, 1874.'"

"The second section repeals those provisions of the Apothecaries Act of 1815 which require any member of the Court of Examiners (or any of the five apothecaries to be appointed under that Act for examining assistants to apothecaries) to be a member of the Society of not less than ten years' standing."

"The same section repeals those provisions of the Act of 1815 which require candidates for examination for a certificate to practise as an apothecary to have served an apprenticeship of five years."

"The third section enables the Society, with the sanction of the Privy Council, to form part of any Conjoint Examining Board to be constituted under the provisions of the Medical Act of 1858."

"The fourth section provides for the Society having power in certain cases to strike licentiates off their list."

"The fifth section saves any existing rights of women to be admitted to the examination of the Society."

Independent of the power given to the Society to form part of any Conjoint Examining Board, the Act will, therefore, be found to effect the following important changes:—1. The Society can for the future select their examiners from the whole medical profession or from any scientific body, instead of (as formerly) from a very limited class of the members of the Society. 2. Apprenticeship is no longer made a necessary condition required of candidates presenting themselves for examination for a certificate to practise as an apothecary. 3. The Society can strike licentiates off their list on the same grounds as they can be struck off from the Medical Register. It may be observed, in conclusion, that no new rights are conferred upon women by the fifth section of the Act.

**Adulteration of Food Act.**—In the House of Commons on Thursday, in answer to Sir H. Peek, Mr. Solater-Booth said that since his hon. friend and also the hon. member for the City of London had, with a large and influential deputation, waited upon him at the Local Government Office, requesting that the Government would take steps to suspend the operation of the law with regard to prosecutions under the Adulteration of Food Act, he had consulted his right hon. friend the Home Secretary, who confirmed the opinion he had himself expressed to the deputation, that it would be quite impossible for the Government to interfere in any way with the execution of the law on this subject, and that they were not prepared to bring in a Suspensory Bill. But, at the same time, having regard to the result of the very full inquiry that had been instituted by a select committee, the Government hoped that the prosecuting authorities would be very careful in taking proceedings under the Act, especially with regard to tea, as to which so much difficulty and some injustice had arisen. Great care would be taken that no further recommendations were made as to the appointment of analysts until the subject had been considered by Parliament.

## NOTICES TO CORRESPONDENTS.

✎ CORRESPONDENTS requiring a reply in this column are particularly requested to make use of a *distinctive signature or initials*, and avoid the practice of signing themselves "Reader," "Subscriber," "Old Subscriber," &c. Much confusion will be spared by attention to this rule.

Dr. C. B.—The MS. to hand. The paging is now consecutive.

SIR JAMES PAGET AND THE "PICTORIAL WORLD."—Referring to the illustration in the *Pictorial World* of the lecture delivered at St. Bartholomew's Hospital, which we noticed in our last, Sir James Paget has written to say that the illustration is much against his wish, as he instantly and positively refused to allow the artist to take any sketches when asked. In defiance of this an abstract of his lecture appeared with the illustration, and Sir James Paget wishes it to be distinctly understood by the profession that he highly disapproves of the course adopted by the *Pictorial World*, with which he is not unnaturally indignant.

OPHTHALMOLOGY EXTRAORDINARY.—Mr. Ede, of Birchfield Road, Birmingham, inventor of "Ede's Patent American Eye Liquid," which cures cataract, aged sight, near sight, and every disease to which our optics are liable, has addressed a note to our publisher asking terms for fifty-two insertions of his advertisement. We make Mr. Ede a present of this, and advise him to send for terms to those newspapers which are always greedy of quick advertisements. Our readers are not supposed to see quite so many newspapers as we, and they will probably be surprised to hear that long and expensive advertisements are going the round of the Press of this "American Eye Liquid," for which it is claimed to cure the most distressing diseases of the eye, the removal of cataract included. Yet so it is; and the public are gulled into the belief that because a list of testimonials is appended, including two from amiable old gentlemen of 84 summers, who for years had been unable to find their own doors, but from the use of this "Patent Eye Fluid," price 2s. 9d. per bottle—large bottles, 11s., they can see it o thread the smallest needle—it is all "as true as the Gospel," and seize the tempting offers with avidity. Truly, this is an age of enlightenment; what will the next be?

A CORRESPONDENT has sent us the following announcement, which is being distributed broadcast:—"A new method of curing diseases of the eye, including certain forms of (we would add mental) blindness, without operation, by Dr. E. Pomies, M.D., oculist, from Paris, 81 Euston Square, London. N.B.—The doctor has room for one or two patients to reside in his house." We hope he will always have room, and plenty of it.

Here is a curiosity that may amuse for a moment:—

**"PANDEMIC OBSERVATIONS."**

To the Editor of the MEDICAL PRESS AND CIRCULAR.

I have the honour to send you, dear Sir, as the result of my earnest observations, the following remarks, requesting you to publish them in your journal in the interest of public welfare and a general discussion.

Yours truly,

CHARLES OF GUNTHER,  
Apothecary.

Munich, July, 1874.

**Pandemic Observations.**—The only rational and surely efficacious preservative for human beings in those acute diseases, which must be reduced to a sick blood (as cholera morbus, pest, yellow fever), consists of a mixture of substances after the following prescription:—

R. Natri phenylic, Kali oxychloric, Kali hypermanganici aa partes aequales, Sulphuris crudi partes decem. Misceantur exactissime. Pulvis servetur in vitro bene clauso.

To be taken every morning a knife's point full, with a little rum or arrack.

Every one who makes use of this remedy during epidemic diseases, will certainly be exempted from them.

To render this remedy accessible to everyone without any expense must be the task of governments, of medical and philanthropic clubs.

The reasons which induce the undersigned to the before-maintained assertion are briefly developed in his pamphlet, "Observations in judging Contagious Diseases," and we will give in the following lines the most important excerpt:—

1. The diseases before mentioned are principally based on a deficient supply of oxygen gas to the blood.

2. In case of illness the organism is highly supported in its resistance by an immediate and internal use of nitrous-oxyd gas (laughing-gas) in its gaseous or absorbed condition.

3. Only the prophylactic impregnation of the body with antiseptic remedies and rich in oxygen gas preserves from contagion and hinders thus the best from farther propagation.

4. Till a complete and rationally executed canalisation of all places, in which an abundance of population is prevailing, the establishment of apparatuses, by which oxygen gas may be produced in the lodgings of the poor, in the hospitals and public buildings must be wished for.

5. Prises must be set out by the government in order to find out the simplest and cheapest methods of producing the oxygen gas.

6. Self-production of saltpetre on the surface of the earth, in the lodgings, on the walls—viz., the conditions of it, must be removed and prevented.

CHARLES OF GUNTHER, Apothecary.

**BOOKS, PAMPHLETS, AND MEDICAL JOURNALS RECEIVED.**

On Poisoning by the Inhalation of Coal-Gas. By Wm. Taylor, M.D. Edinburgh: MacLachlan and Stewart.

An Experimental Inquiry into the Nutrition of Animal Tissues. By W. Marec, M.D. London: Longmans, Green, and Co.

Rare Cases of Congenital Syphilis. By L. D. Bulkeley, M.D. New York: Appleton and Co.

St. Thomas's Hospital Reports. New Series. Vol. IV.

Minutes of the Medical Council at the Annual Meeting, 1874.

On Mycetoma. By H. Vandyke Carter, M.D. London: J. and A. Churchill.

The Period of Infection in Epidemic Disease. By W. Squire, M.D. London: J. and A. Churchill.

The Science of Health. The Phrenological Journal. The Illustrated Annual of Phrenology. Archives of Electricity and Neurology. Missouri Clinical Record. Echo de la Presse Médicale. Paris Medical Record. Il Raccoglitore Medico. The Pharmaceutical Journal. Journal de Thérapeutique. Boston Medical Journal. The Clinic. Philadelphia Medical Reporter. Le Progrès Médical. Hardwicke's Science Gossip. Monthly Microscopical Journal. Students' Journal. Guy's Hospital Gazette. Wiener Medizinische Zeitung, &c., &c.

**APPOINTMENTS.**

ALDERSTON, T. G., M.R.C.S.E., a House Surgeon to the West London Hospital, Hammersmith.

BARLOW, C., M.R.C.S.E., Medical Officer to the Workhouse, and for Welford District of the Stratford-on-Avon Union.

BUCHANAN, A. M'G., M.D., Professor of Anatomy at the University of St. Andrews.

BURGESS, E. J., M.R.C.S.E., House Surgeon to St. Bartholomew's Hospital.

BURKE, W. H. E., M.R.C.S.E., House Surgeon to the Rochdale Infirmary.

CLARK, H. E., M.R.C.S., Assistant Surgeon to the Eye Infirmary, Glasgow.

DAVIES, W. C., L.S.A., House Surgeon to the Westminster Hospital.

GARROD, A. H., B.A., Professor of Comparative Anatomy at King's College.

GRIMBLEY, R., M.R.C.S.E., Medical Officer of Health for the Banbury Urban Sanitary District.

HAWKINS, W., M.R.C.S.E., Medical Officer for the Abbotsbury District of the Weymouth Union.

LAKING, F. H., M.D., Joint Apothecary in Ordinary to Her Majesty's Household.

MACQUEEN, T., M.B., C.M., House Physician to the Queen's Hospital, Birmingham.

PIKE, J. B., M.R.C.S.E., House Surgeon to the Huntingdon County Hospital.

POWER, G. E., M.R.C.S.E., Assistant House Surgeon to the General Hospital, Nottingham.

RUTHERFORD, J., M.D., F.R.C.P.Ed., Medical Superintendent of the Barony Parish new Lunatic Farm Asylum, Woodilee, Glasgow.

SMITH, A. W., M.D., Professor of the Practice of Medicine at the University of St. Andrews.

SMITH, R. S., M.D., B.Sc., Lecturer on Physiology at the Bristol Medical School.

TUNNELL, M. A. P., House Surgeon to the East Suffolk Hospital, Ipswich.

VERDON, H. W., M.R.C.S.E., Demonstrator of Anatomy at the Westminster Hospital Medical School.

**Deaths.**

BARLOW.—On the 25th July, W. R. Barlow, M.R.C.S.E., of Writtle, Essex, aged 83.

CARILL.—On the 22nd July, at Weymouth Street, Portland Place, John Burford Carill, M.D., aged 60.

HARTFORD.—On the 7th June, on board the Royal Mail Steamship "Beilze," of which he was the Medical Officer, Rich. Alex. H. Hartford, L.R.C.P.Ed., of Rose Court, Portarlington, Queen's County.

MARTINDALE.—On the 21st July, John Walker Martindale, M.R.C.S.E., of Patterdale, Westmoreland, aged 84.

SANDWITH.—On the 25th July, at Todwick Rectory, Sheffield, Humphry Sandwith, M.D., Consulting Physician to the Hull General Infirmary, aged 82.

TAYLOR.—On the 22nd July, J. B. Taylor, M.D., of Church Street, Wicklow.

WATKINS.—On the 27th July, John Watkins, F.R.C.S.E., of Thatcham, Berks, formerly of Falcon Square, aged 68.

**Advertisements.**

**OWEN'S COLLEGE (MANCHESTER ROYAL) SCHOOL OF MEDICINE.**

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Director of Medical Studies—GEORGE SOUTHAM, F.R.C.S.

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General Anatomy and Physiology...	William Smith, F.R.C.S.
Practical Physiology and Histology	Arthur Gangee, M.D., F.R.S.
Descriptive and Practical Anatomy	The Professor of Anatomy, J. Bewick Perrin, M.R.C.S., F.L.S.
Comparative Anatomy and Botany	W. C. Williamson, F.R.S.
Chemistry	Henry E. Roscoe, B.A., Ph.D., F.R.S.
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	Edward Lund, F.R.C.S.
Ophthalmic Surgery	Thomas Windsor, M.R.C.S.
Pathology and Morbid Anatomy	Henry Simpson, M.D., M.R.C.S.
	Julius Dreschfeld, M.D.
Midwifery and Diseases of Women and Children	John Thorburn, M.D., L.R.C.S.
Materia Medica and Therapeutics	Alexander Somers, M.R.C.S.
	Daniel John Leech, M.B.
Forensic Medicine	G. Morley Harrison, M.R.C.S.
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The Winter Session will commence on the 1st October. The new Medical School Buildings will be opened on the 2nd October by Professor T. H. Huxley, F.R.S. A composition fee of £50, payable in two instalments, with an annual tutorial fee of £2 2s., admits to the complete course of study at the School, and a further sum of £42 to the Hospital Practice at the Royal Infirmary.

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**ARCHIBALD HAMILTON JACOB, M.D.** Dub., F.R.C.S., Ex-Ophthalmic and Aural Surgeon to the City of Dublin Hospital.

Consulting Physician:  
**EVORY KENNEDY, M.D.** (Hon. Caus.) T.C.D. and Edin., Fellow and Ex-President King and Queen's College of Physicians.

Consulting Surgeon:  
**GEORGE H. PORTER, F.R.C.S.I.**; M.Ch. T.C.D. (Hon. Caus.), Surgeon in Ordinary to Her Majesty the Queen in Ireland; Fellow and Ex-President, R.C.S.I.; Senior Surgeon to the Meath Hospital.

Obstetric Physician:  
**JOHN CRONYN, M.D., F.R.C.S.**, Examiner in Midwifery, Roy. Col. Surgeons; Ex-Assistant Physician Rotunda Hospital.

Work, Income, and Expenditure for Twelve Months, ending June 30, 1873.

Annual number of Dispensary patients	...	...	...	729
Number of visits paid by such patients	...	...	...	5,847
Number of patients within the Infirmary	...	...	...	124
Number of operations performed	...	...	...	168
Total gross expenditure per bed per annum	...	...	...	£27 15 0
Average expenditure per intern patient	...	...	...	1 10 6

The Infirmary is wholly dependent on private benefactions, and is in debt to the Medical Officer. SUBSCRIPTIONS ARE EARNESTLY REQUESTED

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To the pupils who can receive such instruction useful trades are taught. In that of mat making, particularly, excellent progress has been made, and an inspection of the work is invited either at the Institution or at the office.

The Institution is the only one of its kind in Ireland, and is mainly supported by voluntary contributions.

Pupils are admitted free by election, or by payment of £35 per annum. A higher rate is payable for separate accommodation.

Contributions to the fund for the erection of the proposed extensive buildings at Palmerston are earnestly solicited.

Each donation of Five Guineas gives the donor a life-vote.

Annual Subscribers are entitled to one vote for each half guinea paid.

An Asylum for Lunatic Patients of the middle classes, under a well-organised administration, also forms part of the establishment.

Full particulars as to the working of both Institutions, terms, &c. can be had at the office.

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**HOURS:**

8 to 11, and 1.30 to 3.30. Preparations from 4 to 5.30. Dinner at 6, after which the boys go out under the care of a master for a ramble on the mountain or for a stroll on the sea shore. Pupils who are able to swim go, under the immediate care of the Head Master, for bathing at 11.15.

As a recreation, pupils are instructed (their Parents consenting) in Drilling (by a Commissioned Officer in the Army, who is also a Master in the College), Swimming, Rowing, Boxing, Fencing, Dancing, Single Stick, Gymnastics, and all the other requisites of a Gentleman's education—Riding and Driving alone being extras. There is also a Reading-room in the house, supplied with the principal daily and weekly papers, for the use of the Pupils. Great attention is paid to the morals and the manners of the Pupils. Corporal punishment is not allowed under any shape or form.

Monthly Reports of conduct and progress are sent to the Parents, and a Monthly Holiday is given by the Head Master to those Pupils only who have given satisfaction during the month.

The Michaelmas Term will begin on the 1st September; Lent Term, 1st February; and Easter Term on May 1st.

No notice is required before the removal of a Pupil, and boys may enter at any time, charge only being made for the part of the Term during which they have been present. Fees for one Term to be payable in advance—the balance in case of removal will be returned.

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# The Medical Press & Circular.

"SALUS POPULI SUPREMA LEX."

WEDNESDAY, AUGUST 12, 1874.

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## Original Communications.

### REPORT ON SYPHILIS.

By C. R. DRYSDALE, M.D., M.R.C.P.L., F.R.C.S.E.,  
Senior Physician to the Metropolitan Free Hospital.

DR. FOURNIER'S LECTURES ON TERTIARY SYPHILIS.

(Continued from page 89.)

In a lecture on tertiary syphilitic affections of the velum palati (*Le Mouvement Méd.*, 27th June) the able lecturer thus continues:—

The tertiary lesions of the velum palati, to which I shall join as natural annex those of the tonsils, will occupy us in this lecture.

If the interest of a disease be measured either by its frequency, or by the gravity of the accidents it may occasion, or the efficacy of the assistance which art may afford, no disease merits more in this triple point of view an attentive study than that we are about to study.

On the one hand, tertiary lesions of the velum palati are extremely common, so common that in our wards we have them always, and you will meet them pretty frequently in the wards of hospitals not specially devoted to venereal diseases. On the other hand, there may result from the localisations of tertiary syphilis on the velum palati a double persistent disease, which, although not compromising life, is for all that grave, since it compromises in a most serious fashion two very essential functions—deglutition and phonation; and, finally, there are few affections where art is more powerful than in this to prevent or cure serious lesions. There are few cases where the physician may be, as here, more exposed to allow grave and irreparable lesions to appear, if he mistake the disease and does not know how to remedy it in time; or, on the other hand, when he is more powerful to ward off urgent danger and to offer to his patient the most efficacious assistance.

Tertiary lesions of the velum palati and tonsils do not

at all differ, nosologically and historically, from the tertiary lesions of other mucous membranes, not more than tertiary cutaneous lesions do.

Here again, as in the other mucous membranes of the mouth, we shall meet with lesions of various kinds, which are exactly those we have already studied on the tongue.

These lesions are naturally divided into two groups—

1. *Ulcerating Syphilitic Affections*, in which the ulcer constitutes the essential clinical phenomenon, and the first of all, in which at least the ulcer does not succeed after the melting of a tumour originally solid.

2. *Gummy Tumours*, consisting, as all gummy lesions do, in diseased products originally solid, which, later, soften and ulcerate the integuments.

#### I. ULCERATING SYPHILITIC AFFECTIONS.

This first group of lesions has only a secondary importance relatively to that we shall describe further on under the name of gummata of the velum. On the one hand, in fact, it is formed by lesions rather rare. Without being positively uncommon, tertiary ulcers of the velum palati are, however, infrequent, less frequent assuredly than those of the lip, the tongue, or genital mucous membrane.

On the other hand, these lesions do not present in this place any character which calls attention to them. They are here what they are elsewhere, i.e., always, ulcerations, or affections of the mucous membrane, rather variable in their objective appearances, more or less extended, most commonly comparable in diameter to a piece of 20 or 50 centimes, rarely larger; we see some, however, which measure two or three centimetres in length, and one in breadth, or even a centimetre and a-half, or two centimetres; these ulcers are more or less hollowed out, attack the velum in different cases to an unequal depth; most frequently, however, superficial, and with more or less raised edges, generally rounded or oval, presenting a yellowish, or yellowish-grey base, sometimes carpeted with adherent pellicles, whitish, opaline, or even pseudo-membranous.

Without being themselves truly painful, these lesions determine, because of the functions devolving on the organs they attack, a notable annoyance, which is marked

by habitual sensibility of the throat, with dryness and difficulty of mastication, and especially of deglutition. The food is felt in the mouth; whether acid, spiced, or hot, it becomes painful. Besides, the presence of these ulcers in the mouth excites a disagreeable salivation, calls forth frequent desire of swallowing, which only make the pain worse—keep up, in a word, a permanent condition of distress, and of difficulty in the fauces. Sometimes, however, these lesions are completely indolent, and may even be ignored by the patient.

A fact we must not forget is that ulcers of this kind are not seated solely at the anterior aspect of the palate. They have been seen to attack the posterior aspect of the velum; there, it is easily understood, they escape observation, and can only be shown to exist by rhinoscopic examination.

Ulcerative syphilitic affections of the tonsils are far more frequent. Here, again, there are few distinctive characters in the ulcer, which appears under the aspect of an irregular wound, even because of the position it occupies, generally greyish, or yellowish-grey, sometimes pul-taceous, hollowed, or cupped, more or less extensive; sometimes partial; sometimes covering the whole surface of the tonsil; sometimes almost indolent, sometimes awakening a certain reaction near it (swelling and redness); and then being accompanied by pain in deglutition, continual annoyance in the throat, with sometimes buzzing and painful dartings in the ear. In some cases the tonsil has been attacked, and even completely destroyed by ulcers of this kind.

#### II. GUMMY TUMOURS OF THE VELUM.

This much being said about the first group of these tertiary lesions, let us come to the most important subject which is to occupy us to-day—gummy tumours of the velum.

Gummy tumours are not different in the velum palati from what they are elsewhere. They consist originally in a solid neoplasm, which softens later on, opens, and finally degenerates into an ulceration of the mucous membrane.

But the conditions of its position affix to it a peculiar aspect, and determine especially special lesions which it is important to examine in detail.

Let us, then, follow the gummy tumour in the different periods of its evolution, and see to what phenomena it gives rise at each period.

I. The gummy tumour quite at its commencement consists in a little solid tumour, hard, without inflammation, raising up the mucous membrane, and nearly resembling what a foreign body would do (such as the kernel of a cherry or an almond) introduced into the velum, between the two mucous surfaces. Its form and volume at this date are comparable either to a small pea (in which case the tumour is spheroidal) or to an almond.

But it is extremely rare to observe the gummy tumours at this initial period. It is a rare fortune to observe the gummy tumour arising in the form of isolated tumour, circumscribed, cold, and without inflammation. It is not, certainly, once in thirty or forty times that we meet it in this embryo period.

And why? Because one of two things occurs: either the gummy tumour passes unremarked by the patient at this period—the patients do not even perceive it, for it awakens neither pain nor functional annoyance of any kind; or perhaps the patients observe that they have a little tumour in the palate, a little kernel; but as the tumour is quite indolent and not annoying, they do not disquiet themselves, thinking that it will go away of itself, and don't come to consult us.

Thus, usually, it is most frequently at an epoch far later on that we commence to observe in practice the gummy tumour of the velum, at an epoch when it is extended, developed, and where it has commenced to awaken in the neighbouring tissues a certain degree of inflammatory reaction.

Well, then, let us examine the gummy tumour at this moment, the earliest moment when we are asked to look at it.

II. What do we find at that period? One or other of the two following appearances:—

1. Either (this is the rarer case) there is a circumscribed swelling, and of inflammatory aspect, occupying some portion of the velum. On a point the size of a piece of 50 centimes, or a franc, there is a notable projection on the velum of the form of the segment of a sphere. At this level the mucous membrane is red, visibly inflamed, tense, glistening, varnished, and resistant to the touch. It is evident that this projection corresponds to an infiltration of the velum, and that the foreign substance has reached in an inflammatory way to the neighbouring tissues.

2. Or, again, what is far more common, there is diffused inflammation of a more or less extended portion of the velum; a fourth part, a third, or a half of the velum is the seat of this infiltration; more rarely the velum is affected more extensively, in its two-thirds, or three-fourths. Almost never the velum is entirely affected.

Another clinical attribute which the eye notices at first sight, and which the touch confirms, is the thickened condition of the velum.

This projecting velum, projecting at one part, ought of necessity to be thickened. The eye guesses this thickening, and the touch confirms it. The finger, moved alternatively over the healthy and diseased parts, gives the sensation at the level of these last of notable thickening. The thickness is triple, or quadruple.

Besides, the same exploration teaches that at the level of the diseased parts the velum is hard and resistant. And, again, the last phenomenon remarked, which is but a consequence of the preceding, this velum, which is partially engorged, has become partially rigid and fixed. I will explain.

When you examine a healthy velum you see it during your exploration execute certain motions, under the influence of the respiration, or its own proper influences; you notice it rise, fall, and become modified in its form in the convex portion, in its pillars, and other parts. Nothing like this now occurs. The velum infiltrated by the gummy syphilitic affection is motionless, if not wholly, at least partially, in the extent occupied by the infiltration; it is not susceptible of those delicate movements it executes when sound; it is rigid, as if fixed down and inert.

And yet this velum, pray remark, is not the seat of a distinct, isolated, and localisable tumour; it is itself which is affected in its proper tissue and swollen.

I insist on this point, because it is of great importance. The majority of students to whom we show such a lesion generally called gummy tumour expect to see something else, and say to you, "Where is, then, the tumour? You speak to me of a tumour, and I do not see it. I only see a velum palati thicker than usual—a swollen velum, hard and red." Well, gentlemen, in fact, what is called gummy tumour has disappeared, probably by consecutive infiltration of the neighbouring parts, or by surrounding inflammatory engorgement. I cannot tell you how, but it has disappeared as far as a distinct tumour, and what we notice now is nothing more than a swollen velum, thickened, and itself constituting a tumour, or being itself the tumour.

To sum up then: Deformity of the palatine arch; thickening of the velum; hardness; rigidity in the movements, in which the attacked part does not participate, dusky redness of the parts, all without distinct tumour.

Such are the objective symptoms; it is by the same, then, that you ought to recognise the gummy tumour of the velum.

Now, are these correlative functional troubles added to these objective symptoms? This, gentlemen, it is important to discuss, on the one hand to dissipate certain errors repeated by pathologists on the point, and on the other hand, to establish one of the most salient sides of the lesion we are speaking of, that is, its peculiar insidious character.

It has been said, and you will see it repeated even in certain recent monographs, that these lesions were accompanied or preceded by general phenomena—certain premonitory malaise, excessive fatigue, weariness, headache, fever, want

of appetite, furred tongue, &c. . . Here, gentlemen, I protest. This is an error of observation, a material one.

On the one hand, the gummy tumour is not preceded, or announced, by any general trouble. On the other, it is evolved absolutely without heat, without reaction on the organism, without fever, or without any disturbance of the health.

That in certain cases, of which I shall speak further on, in those cases of lupus of the throat where multiple lesions take on an excessively acute progress, there is produced a rather marked general disturbance of the health, characterised by a febrile state and by malaise, want of appetite and weakness, &c.; this may be true, and is sometimes seen. But that apropos of a simple gummy tumour of the velum, or a circumscribed and solitary lesion, as is most frequently observed, nine times in ten there are produced phenomena of this kind is quite false, and the proper character, on the contrary, of the lesion we are at present studying, is to arise in a cold and latent manner with a kind of absolute indifference of the organism.

And, not only is the lesion produced without any general symptom; it, moreover, is locally evolved, at the time, at any rate, of which we speak, with remarkably slight symptoms. This is even a symptom which it is very essential to place in evidence, and on which I cannot too strongly insist. Do you think that this lesion which just now is about to end in such important lesion, which is about to perforate the palate, determines, when it arises, symptoms proportionate to its real gravity? Not at all.

This lesion, quite on the contrary, is remarkably inoffensive, singularly benign, far more benign than the slightest inflammatory angina. First of all, it is very slightly painful; I might almost say it is not painful. The palatine gummy tumour, when it is forming, or softening, does not give rise to acute suffering, no beating, nor stabbing pain, nor constriction of the fauces.

All that it produces is a certain annoyance in the throat, a sore throat slight enough to make the patients not disquieted in general.

In the second place, there are few functional troubles: the voice is scarcely modified, or at most, as it is in a slight angina; deglutition somewhat impeded, especially in the ingestion of liquids; and only occasionally, nasal regurgitation of drinks on account of the rigid state of the velum. Even this is rather rare, and only noticed in the cases where the velum is complicated to a great extent.

And that is all. Nothing more is felt.

So much is this the case in the majority of instances, that the patients do not even disquiet themselves about these slight phenomena. They only pay a divided attention to them. They think themselves affected with a common sore throat, accidental, as every one has experienced twenty times in his life, and which is easily cured without treatment. They attribute the general malaise to cold; in short, they suffer so little from it, and feel so little troubled that they do not even think of consulting a doctor, and await with tranquillity a cure which, according to their belief, cannot be delayed.

Listen to them, indeed, relating their misadventure, when later, terrified at the destruction which has taken place so unexpectedly, they hasten to us. It is invariably the same theme, the same stereotyped phrase, "How could I have expected this? I was in good health, and had not the slightest fever. Indeed, I was not suffering from sore throat, I felt almost nothing, I thought I had taken cold, and that was all. I have had ten times sore throats which have given me more pain, and which got well of their own accord. How could I have been able to think myself threatened with what has since happened?" &c.

In fact, gentlemen, there exists a singular opposition, an almost extraordinary contrast between this absence or this benignity of local troubles, and the results in which the disease ends suddenly at the time of which we are speaking. The slightest angina, the slightest quinsy, would make a hundred times the disturbance, and end in nothing grave, and be cured without any result. The

palatine gummy tumour, on the contrary, benign and almost latent, conducts to serious and irremediable lesions of which I am about at once to speak to you.

The palatine gummy tumour is then, *par excellence*, insidious, remember that, gentlemen, for that is the most essential character of it, and the most striking feature of the disease, that which it is most important to be acquainted with. It is a lesion which commences and constitutes itself with the most innocent appearances, but which all at once ends in grave accidents which I must speak of. These accidents are those of the tertiary period, the period of ulceration, the study of which we are now about to enter upon.

III. After having persisted a certain time in the preceding form, the palatine gummy tumour undergoes the lot of all gummy tumours, that is, it softens and opens at a point, and then it ulcerates. There are phenomena of the tertiary period which we must study in detail.

First of all, how does the gummy tumour open? Almost always without the knowledge of the patient, sometimes during mastication, sometimes in sleep, as in one of our patients who, having gone to sleep with slight sore throat, from which she had suffered some days, was not a little stupefied in awakening on the morrow "with a hole in her palate," no longer speaking without a nasal twang, and rejecting drinks by the nostrils.

In all cases, this opening of the gummy tumour always takes place painlessly; then the opening which occurs enlarges almost immediately. In a very short time it is converted into a true ulceration, which extends more or less in a remarkably rapid way, progressively attacking the whole extent of the parts infiltrated by the gummy tumour.

There is nothing surprising in the rapid progress of the ulceration which then takes place. This rapid destruction was prepared. It is not, indeed, a healthy mucous membrane which thus disappears in a few days; it is a mucous membrane long diseased, undermined, thinned, and almost destroyed already when perforation takes place.

One of two things then occurs: the velum, in spite of its thinness, nevertheless remains without perforation; or again (and this is far the most frequent event), the velum is destroyed in all its thickness, and if this destruction is directed to its central parts, it is perforated in various points.

In the first case, where there only exists a simple ulcer, without perforation, what we remark is very simple: there is loss of substance, a sieve-like appearance in the velum, the anterior aspect of which is more or less hollowed out, but the posterior aspect remains intact. It is, in a word, an ulcer, the base of which is formed by the portion of the velum which remains healthy, reminding us of the aspect and all the characters of the gummy ulcer, *i.e.*, ulcerations with sharply-cut edges and red border, resting on hard, engorged, and elastic tissues, of yellowish base and sloughy, that is, with base formed by degenerated gummy tissue in the state of slough.

Sometimes this ulceration (especially if suitably and rapidly treated at this moment) remains as it is, without extending itself and without burrowing more; then it becomes repaired and scarred over.

In this case, the most lucky, the velum palati has remained imperforate. But more frequently, after having destroyed the anterior part of the velum, the ulcer finishes its work, and, attacking the posterior part, finishes by complete perforation. The affection then enters into the second order of lesion, about which we are going to speak in a moment.

Let us at once say, not to have to return upon this point, that the opening and ulceration of the gummy tumour do not always take place, as we have supposed until now, at the anterior aspect of the velum. In the great majority of cases it is, indeed, at the anterior aspect that the tumour appears and opens. But in some cases the opening takes place behind. Nothing is changed in the diseased process on that account. Only the perforation, in place of taking place from before backwards, as in the preceding case, and

the most ordinary one, takes place in the opposite direction, i.e., from behind forwards.

In the second order of cases the velum is attacked in all its thickness. It is then not alone a superficial affection that we notice on the velum, it is an attack without any base, a complete destruction. Now, according to the point where it takes place, this destruction of the whole thickness gives a different aspect to the lesion. If it take place on the sides of the palate it simply ulcerates the velum. If it operates on the central parts, it makes a complete hole in the velum, a perforation proper.

But it is of little consequence whether the destruction take place here or there with respect to the intrinsic characters of the lesions, which always remain the same and present themselves always with the same objective attributes. Whether the gummy ulcer be marginal or central, it none the less preserves its proper characters; and these characters are never else than those of all gummy tumours, i.e., hollow ulcer, sharply cut, resting on violet-red tissues, hard, elastic, as if lardaceous, with yellowish base and sloughy, or again, often covered with a sort of whitish varnish, pellicular in form (the aspect assumed indeed pretty frequently by all specific ulcerations of the throat).

Only the disposition of the gummy ulcer differs according to the points it occupies. If it occupy the periphery of the velum, it consists in an ulcerating band which borders the palate and more or less ulcerates it, penetrating more or less towards the central parts. If it occupy the central parts it then constitutes a sort of ulcerative canal hollowed out in the velum; this canal does not measure less than six or eight millimetres through the thickness of the velum, sometimes even more, about a centimetre.

The ulcerated walls of this canal are hollowed out of a tissue which is hard, red, violet-coloured, and which is but the velum infiltrated with special or inflammatory products. They present a yellowish, diphtheritic surface, or aspect identical with that of the gummy ulcer.

In ulterior evolution this ulceration is considerable, by extension within certain limits; it extends over the whole surface of the parts infiltrated by the neoplasm, but not further. All that has been attacked by the gummy tumour is eaten away and disappears; but when that is gone, the ulcerative process ceases, and does not go further (I make reservation, however, for certain cases of which I will hereafter speak, and in which the ulceration continues beyond the initial seat of the gummy tumour, assuming a phagedænic aspect).

Here a curious remark must be made. When the ulcerated tissues disappear, how do they disappear? Without leaving any trace, and without the knowledge of the patient or practitioner. What becomes of them, we know not, nor do we see. They appear to melt away, as we may say. In every case they form no distinct slough which separates from the healthy parts and falls into the mouth; we shall find no traces of them; this is a fact which we may explain as we will. These tissues disappear as the lung disappears when excavated in an extent which is often considerable by cavities from tubercles. Probably, and even certainly, I may say, there takes place then a kind of molecular destruction, of which the elements, of small size, divided, dissociated, are taken away by the saliva, ejected with the sputum, or swallowed.

And finally, when this work of destruction has been ended, what remains of the diseased parts? what is the condition of these parts?

Too briefly, persons are contented to say in general that the velum is attacked, perforated, and destroyed. These matters, it seems to me, deserve closer examination, and different kinds of mutilation of the velum may be distinguished. These forms are four in number, and may be designated in the following way:—

1. *Marginal Ulceration of the Velum.*—Here the mutilation attacks the periphery and margin of the velum, the pillars, and the uvula. These are attacked and destroyed for more or less an extent. For instance: On this woman, the right arch of the velum has been ulcerated

to the extent of half a centimetre, from before backwards, and for about two centimetres transversally. When the gummy infiltration comes near the uvula, at its base for instance, this appendix may be detached; we see in this way the uvula, guillotined by the gummy ulcer, detached wholly from the velum. At other times, and more frequently, the uvula, attacked by the infiltration, is destroyed molecularly, and disappears, without leaving any trace. The velum then remains, deprived of this appendage.

2. *Perforation.*—This mutilation of the velum consists in a hole dug in the area of the velum amidst the parts which remain healthy. It may occupy various positions—the middle line, the lateral part, the anterior or the posterior parts. When seated on the posterior part of the velum it becomes almost marginal, and is then merely separated from the posterior border by a very narrow band of healthy tissue, reduced to some millimetres of antero-posterior thickness. Most frequently the form of the perforation is rounded, and that more or less regularly; sometimes perfectly round, as if made by a compass; at other times oval; or more lengthened, elliptical, and then always lengthened transversally, in the path where the muscular tractions of the velum act. The dimensions vary; sometimes the perforation is small, so that the point of a stylet can scarcely penetrate it; more frequently it has a more considerable diameter, and allows easily the passage of a sound of ordinary dimensions; at other times (and that is not rare) it has the dimensions of a piece of 50 centimes; more rarely it attains the size of the kernel of an apricot. It may be even larger. I have seen one recently which measured three centimetres transversally and a centimetre to a centimetre and a half in antero-posterior diameter.

3. *Division into Curtains.*—This form is almost as frequent as the simple perforation. It is produced by the following mechanism: when the gummy infiltration has occupied a certain extent from before backwards of the median portion of the velum, this portion is destroyed finally by softening and ulceration. But, when the work of destruction has been accomplished, the velum is found divided in its middle line from before backwards, and segmented into two lateral flaps. What happens then? Under the influence of the muscular retraction, these two flaps separate like large curtains of a window tucked up. Adhering to the hard palate by their apex, they separate laterally by their inferior part, and simulate pretty closely, I repeat, window curtains, which, approaching in their upper part, diverge laterally below. When, in this kind of mutilation, the uvula has been left, we see it hanging to the flap to which it has remained adherent, and forming there a sort of soft and movable appendage, or test.

4. *Destruction almost Total, or Complete Destruction.*—This last variety is much less frequently noticed. Yet it is not very rare that a proportional destruction of the velum succeeds to these gummy infiltrations where very extensive, when the velum is mutilated more or less completely. Let us further remark this: were it mutilated only partially, it would appear to be so much more because of the lateral traction of the stump remaining. Most frequently the pillars remain intact, at least partially, but retracted towards the lateral parts of the pharynx, and confounded with them, they appear to have vanished.

Let us finally say that in certain cases, luckily rare, the destruction is complete and absolute; then there remains not a trace of the velum.

Dr. Nevins Hyde, Lecturer on Syphilis and Dermatology in Chicago (*Chicago Med. Journ.*, July, 1874), quotes Dr. Brouardel concerning those lesions of syphilis, which are apt to prove fatal. Dr. Brouardel (*Gaz. des Hôp.*, April 14) thinks that the graver forms of syphilis occur when treatment has not combated the disease.

Precocious malignant syphilitic skin diseases are developed in the aged, the scrofulous, and those with diatheses. Ricord used to say there was a scrofulate of syphilis. Disorders of the lungs in syphilis simulate phthisis.

Tertiary syphilis of the brain, liver, and heart, are to be considered carefully. Periostosis of the cranium, rare on the external table, are frequent on the internal table. Their seat of predilection in the vicinity of the sella turcica, the basilar apophysis, and base of the brain.

The encephalon exhibits gummy tumours developed at the expense of the brain substance, and lying on the convolutions, the crura, or the pons varolii.

Violent nocturnal headache, producing sleeplessness, vertigo, and vomiting are common to all syphilitic periods, but the tertiary forms are the most persistent. The iodide of potassium is not of itself sufficient for a cure. Mercury is also needed.

Most cases of paralysis of the third nerve are not dependent on osteal or periosteal lesions, as they come after secondary disease. Epileptiform seizures are less complete and more localised when syphilitic than when uncomplicated. There is in general no *aura*, nor is there alternate pallor and suffusion of face.

*The Liver.*—Interstitial hepatitis and gummy tumours of the liver strangle the vessels, &c., and produce atrophy and amyloid degeneration of the gland. This causes ascites and jaundice. Syphilitic ascites is variable—re-appearing and disappearing. It is therefore more curable in extreme than in other forms. The jaundice may produce an almost black discolouration of surface. Hæmorrhage from the stomach, bowels, and nostrils may accompany it.

*Larynx.*—Edema may originate in mucous patches of vocal cords or adjacent membrane. Thence may result ulcers invading the trachea, and aphonia from destruction or ulceration of the vocal cords, and stenosis.

## MEDICAL SCIENCE AND MEDICAL TEACHING.

By GEORGE BARRACLOUGH, M.A. (Cantab.), M.R.C.S.

(Continued from page 108.)

If we conceive, as I presume we do, that study of the structures and organic functions of the lower classes of beings in their healthy state is likely to enlighten us in respect to similar things in the human frame, why should we not conceive the same to hold good in regard to what is morbid, so far as it exists in lower forms, and act accordingly? And, yet, has this hitherto been our plan? These are the considerations which induce me to think that in respect to the physiology of health and disease we are not in the right path of research. We have commenced our researches at the wrong end of the series. Otherwise, when we ponder on the poor results achieved, as contrasted with the circumstance that the libraries of our medical schools are literally groaning under the vast accumulation of recorded facts, the only supposition open to us, by way of explaining the barrenness of this ant-like industry, is, that the medical profession is wholly devoid of genius—a thing hard to believe.

As involving λόγος, and therefore the highest theoretical and teleological considerations, it is difficult to see what the pure empiricist, or positivist has to do with physiology or pathology. Physiocracy, necroscopy, are the proper terms for him—æsthetics, not logical science. And yet he persists in retaining within his vocabulary, and desecrating thereby, a word about which cluster the grandest associations of ancient thought. Indeed, to our poor humiliated λόγος, how well the lines apply that the laureate sings of another desecration:—

"The grand old name \* \*  
Defam'd by every charlatan  
And soiled with all ignoble use."

In the physioscopy (not physiology) of morbid structures, what the empiricist or thorough-going positivist has to note are simply the phenomena which are present to the senses. And it must go very hard with him to find a

language appropriate to his negations, or his positivisms. To be consistent, he must reject not only scientific, but popular nomenclature. As pointing to feeling and consciousness, rather than to any physical state, the term "dis-ease" will hardly suit his purpose, and still less will the popular phraseology as exhibited in the expressions *maladie*, the French *maladie*, and in such ordinary phrases as "My liver is bad," "My lungs are bad," "My leg is bad," implying the recognition of a right and wrong in Nature, not in any ethical sense, but in the sense of fitness, meaning, purpose, design, means to an end—teleology, in fact. And these are all ideas abhorrent to the positivist's principles, or, rather, to his negation of principles.

I know not how it may be with others, but it seems to me that I never yet heard the conversation, nor saw the book which could for long avoid the manifestation of ideas implying a recognition of efficiency and finality, notwithstanding all protestations to the contrary. For instance, Dr. Wilks, though he discards all such ideas as are conveyed in the terms "conservative processes," and the "vis medicatrix nature," and evidently writes as a disciple of Comte when he remarks, "Such notions would show that we had not reached the true scientific method, but, according to Comte, were still in the metaphysical stage of thought, when external agencies were supposed to be ruling the world;" yet, notwithstanding this rejection, he details a case in which he accepts the doctrines associated with the above phrases in the most unhesitating manner, and guides his treatment by them accordingly. A case of ulceration and perforation of the appendix cæci is instanced, in which the lymph that is thrown out around the aperture may, by "glueing the opening to a neighbouring part of intestine, prevent further egress of faecal matter, and limit the inflammation to a corner of the abdomen. Absolute rest, therefore, is necessary." And "Nature," the learned doctor goes on to remark, "attempts this by temporarily paralysing the movements of the intestine, and taking away all desire for food." Here the paralysis of the bowel and stomach is regarded as a conservative process, and as the manifestation of a certain *vis medicatrix nature* behind, or inherent in the phenomena, and by the agency of which a cure is to be wrought. Those abstract entities, viz, the "forces" of that other abstract entity "Nature" (all of them, here, objectively misrealised), which later on are described as going "blindly" on, heedless of results, are not here blind and heedless, but "half-intelligent powers with benevolent objects in view." Here we have teleology, theory, and I know not what other dreadful things of the kind, all very different from that positivism and empiricism which the learned doctor elsewhere holds up to our admiring gaze. I may add, by the way, that more than one or two of the cases adduced by Dr. Wilks, as well from his own practice as from that of others, as illustrations of successful empiricism, savour much more of theory than of empiricism. At the same time, I may just call attention to the fact of consumptive persons being characterised as "over-bred," because this appears to involve an ideal, i.e., a metaphysical standard of breeding.

The approving reference to Comtes' philosophy, which we have just seen, illustrates still further what I have before remarked, that the real question at issue between Dr. Wilks and others is not one merely of the usage of truly scientific method, but of what constitutes such a method, or, in our author's case, what he conceives to constitute a truly scientific method. It does not seem to have occurred to him that other physicians, standing on their equal rights in regard to the conception of method, might decline to accept as "truly scientific" the method which M. Comte founded on his famous negations. It is not at all my purpose to defend any particular theories which may be associated with the expressions "conservative process," "vis medicatrix," "force," "Nature," vague terms, as Dr. Wilks designates them; but I do protest against Dr. Wilks' assumption that the notions associated

with these terms do, in the minds of many who use them, necessarily imply the existence of agencies external both to the mind and phenomena, and at work behind these latter. As we have seen, Dr. Wilks himself cannot get on without some of these vague terms, and it is he, rather than those whom he censures, that uses these terms to represent something clothed with transcendental and noumenal existence—something, by way of efficiency, at work behind phenomena. Such are the entities which he associates, for instance, with the terms disease and Nature. And this is the very proceeding, substituting "objectively realised" for "personified," which is condemned by M. Comte, when, in the famous "Exposition," he describes the notions resulting from it as "*Véritables entités (abstractions personifiées) inhérentes aux divers êtres du monde, et conquies, comme capables d'engendrer par elles-mêmes tous les phénomènes observés dont l'explication consiste alors à assigner pour chacun l'entité correspondante.*" The terms under consideration denote, with many who use them, simply general conceptions of the mind, in the way of hypothesis, theory, law. But then there is no attempt, and quite the reverse of any desire, to misrealise these by projecting them beyond the mind or conceiving of them as entities having an independent objective existence, external both to the mind and phenomena, and determining the existence of these latter by virtue of some native efficiency. No reasonable person imagines that any higher reality can be conferred upon these conceptions by transporting them into the phantomland of Noumena. For us, *τὸ νοητὸν* must take the place of *τὸ αἰσθητὸν*, though without being at variance with it, and therefore is rightly regarded as having the higher reality. Such, then, being the nature of the notions associated by most scientific minds with certain "vague terms," the reproach that such notions are understood as implying the existence of noumenal entities does not apply to them, but to those who, like Dr. Wilks, misrealise their mental conceptions.

It is not a little remarkable that our author should object to the use of certain abstract terms because they imply the existence of metaphysical entities, for the ontological speculations which he associates with certain terms imply the existence of transcendental entities which have ever been denominated metaphysical by the historians of mental science. It is equally remarkable that he should, as he evidently does, expect this objection to have any weight with those to whom the greatest claim that any entity can have to be considered real resides in the possibility of applying to it the term metaphysical in another of its recognised acceptations, as denoting right conceptions—"notiones rectæ," not "temeræ abstractæ." Such persons do not feel themselves constrained to abandon all effort after right conceptions, right theories, simply because there happen to be wrong ones; and this sort of entity has, for them, a reality amply sufficient, because, when the result of the right conception, it involves more than could ever be "actually" obtained through sense, and which, therefore, has the higher reality. For this reason, they do not consider the case demands the exchange of a sufficient reality, for one whose existence is only warranted by the belief and alleged intuition, not of their own, but of another mind.

In regard to what is said about the forces of Nature going "blindly on, heedless of results," such truly scientific doctrine might consort very well with positivism did not that philosophy express the greatest repugnance for such "*véritables entités*" as "force" and "Nature." The proper form of expression for pure positivism would be, "the physical facts of the universe succeed each other without reference to any final or efficient cause." But however the doctrine may stand in reference to positivism, the language will not harmonise with doctrine deemed truly scientific by those who think they have the privilege of seeing, in respect to organology and the physiology of animals, a design, meaning, purpose, fitness to an end in the individual organs. Such persons,

though not excluding the notion of cause as historical, yet do not rest in this, but go on to a fuller conception of causation. With them the "reason" why a thing exists is something more than the sum of all its physical antecedents. The efficient cause of the simple existence of anything in space is spirit, that being the only transcendental noumenon they recognise for the sake of efficiency; and the efficient cause of its existing as an event in time or portion of a series is the circumstance of its being the expression of a thought of the Demiurgus, and a means to accomplish the end designed by him from the beginning. Hence, it would be impossible for such persons to speak of the forces of Nature, according to their conception of them, as going blindly on, heedless of results, for such language would involve a contradiction in terms. I know not how far such language would be acceptable even to those whose conception of cause does not transcend the historical view. Finally, they who indulge in teleological speculations aver that they find them eminently serviceable in suggesting right theory and conception, and consequently, as highly valuable in truly scientific investigations; and, indeed, the history of scientific discovery abundantly confirms their doctrine.

There now only remains for examination Dr. Wilks' "Theory or Canon of Criticism;" and this is neither the least interesting nor the least important of the subjects about which he has expressed his views. In the dogmatic form into which the learned doctor has thrown his remarks on this subject he gives utterance to a piece of pure egotism, which, independently of its suggesting what is true or false—as being undisguised and as giving an insight into his views of phenomena and knowledge, need not encounter our disapproval, did he not, in affirming it, transgress his own canon. I must crave the permission of the reader to cite entire that portion of the paragraph in which the canon of criticism is disclosed, as follows:—"All truly scientific theories are completely disassociated from the mind of him who has framed them. Man is the 'interpreter of Nature,' and thus, in taking the works of a great philosopher, like Faraday, little of the individual is to be seen. The purer the work and the more of Nature in it, the less is the will of man seen. In very many of our medical theories I witness exactly the reverse: the framer of them is intimately associated with them, and with him they sink or fall. I have more than once inwardly condemned a scientific work because the prominent object before the reader's eye has been the author, and my conviction has always been confirmed by the experience of time. I believe this to be a true canon of criticism, and therefore no argument in favour of any particular method of treatment of disease, framed by the fancy, can have any weight with me. And a very large number of our plans are of this kind."

"Man is the interpreter of Nature;" but let us try to penetrate the vague generalities implied in this Baconian phraseology, and endeavour to clear our eyes a little of the dust it is so often effective in throwing into them. Every individual man engaged in investigating the physical facts of the universe does, by means of his powers of abstraction and generalisation, institute comparisons and find relations between phenomena; further, by the aid of imagination, theorises and evolves principle and law: and in this consists the interpretation of Nature. The use of the abstract term "man" has the effect of concealing the individuality and personality at work in the above process; as if, not individual men, but some abstract entity, or "man in the abstract" more engaged in scrutinising, not actual physical facts in the first instance, but an abstract though objective entity—viz., Nature. We cannot help wishing these two entities—much joy of the process; but to persons who are not positivists with a surreptitious liking for such things, they are rather deficient in interest. When the learned doctor goes on to remark, "the purer the work, and the more of Nature in it, the less is the will of man seen," we ask ourselves what is meant by "more of Nature in it." It is tolerably clear, from the context, that our author is here regarding Nature as a realised abstraction; for if Nature means only physi-



cal fact, then, the more numerous the facts interpreted, the wider must be the interpretation, and the more numerous, consequently, must be the processes of *personal* thought it involves. That these personal processes are not all of them seen is a mere matter of form. Is it always an advantage, we further ask, that "little of the individual is seen?" In all science that is not mathematical there must invariably be a strong egotistical element: it may be concealed with infinite art, it may be frank and ingenuous, or it may be abstruse and empty, and the science of which it is the vehicle correspondingly empty; but, still, exist it must. It is the diffident and modest manifestation of this personal element, both in its history, *i.e.*, how it has come to be what it is scientifically, as well as in its final form—rather than the mock-modest hiding of it under a bushel—that is of such inestimable value instructively to those that are to come after. Bacon was sensible of this when he wrote:—"Whereas knowledge, which is delivered to others as a web to be further wove, should if possible be introduced into the mind of another in the manner it was first procured; and this may be done in knowledge acquired by induction; but for that anticipated and hasty knowledge we have at present it is not easy for the possessor to say by what road he came by it. Yet in a greater or less degree anyone might review his knowledge, trace back the steps of his own thoughts, consent afresh, and thus transplant his knowledge into the mind of another as it grew up in his own. . . . He who would promote the growth of the sciences should be less solicitous about the trunk or body of them, and lend his care to preserve the roots, and draw them out with little earth about them." One other testimony I may add to this, from the pages of the late Professor Grote, who, after affirming that his own writings are full of egotism, remarks of other authors to this effect: "I can only say that in reading what others have written it is a matter continually occurring to me, how much better it would have been if they had been more egotistic; how much better we should understand what they meant if they had described the manner in which the thing had come to present itself to their mind, and let us a little see their thought in the forming; also, how many pages of literary history, ending at last in unsatisfactory result, would have been also saved if this had been the case."

(To be continued.)

### CASE OF TWIN-BIRTH—COMPOUND PRESENTATION OF SECOND CHILD.

By J. P. BYRNE, M.R.C.S.E., &c., Anghrim, Co. Wicklow.

As I believe compound presentations are of rare occurrence, I venture to place the following case before the readers of the MEDICAL PRESS, which, although it illustrates nothing new in midwifery, may possess sufficient interest from the fact that it belongs to a class of presentations not generally observed in practice. Of these presentations Churchill says (*vide* p. 438): "In the cases recorded by Drs. Joa. Clarke, Collins, and Johnson, no example is mentioned, and in those of Mesdames Lachapelle and Boivin, only three, *i.e.*, three cases in 75,903 deliveries." Ramsbotham, speaking of similar cases, observes (*vide* p. 367): "The feet, a hand, and the breech are not very infrequently detected together at the pelvic brim, and I have known some few instances in which the head, a foot, and a hand were all presenting at the same time. If it were practicable under such a complication, it would be most advisable to push the hand and foot above the brim (as will be hereafter more particularly advised), and allow the head to come down alone; if not, to turn the child by traction at the foot and bring down the breech."

Early on the morning of the 23rd June I was called to attend a woman in labour. She had given birth to a child, but was said to be in need of my services "as all matters

had not come right." I of course concluded it was a case of retained placenta, and merely took a bottle of *ergotæ liq.*, as is my usual practice in such cases—of frequent occurrence in my locality. On my way to her house (one mile and a half distant) I was met by two messengers at different intervals, who told me the woman could not be worse, and that I could scarcely reach her alive. On my arrival I found a very different case from what I anticipated: the poor woman was suffering the most agonising pains, which were unfortunately unavailing, owing to the impaction in a malposition of a second *fœtus*. On examination I found a hand, two feet, and funis presenting well beyond the external parts, and so doubled was the *fœtus* that the head was close to the perinæum. The midwife in attendance (a person whose knowledge of obstetrics was merely traditional, and whose faith in the powers of Nature so unlimited as to approach to fatalism) had no idea of the nature of the case till she was appalled by the appearance of the extremities, and hence I found myself devoid of instrumental means, should such become necessary. I had first to deliberate briefly what was to be done, then to act. The uterine contractions were frequent and violent; there was no time to be lost. The cord was pulseless, so that I entertained no doubt as to the death of the *fœtus*. I had a case of complete impaction to deal with. I thought of "spontaneous evolution" as useless to expect; craniotomy, and the danger of waiting for instruments. Pressing the head upwards, or making traction on the feet produced no movement in the position of the *fœtus*. By a few patient efforts I succeeded in returning the arm within the pelvis. Still the *fœtus* continued immovable. It then occurred to me to try and return the legs, which I did separately, and with less difficulty than might be conceived. No sooner were the legs returned than the head came forward with a rapidity suggestive of spontaneous expulsion, and the delivery was completed.

Using expression on the uterine tumour for a few moments brought away the placenta, which were of large size, and so intimately fused together as to present all the appearances of a single structure, whether viewed from the uterine or opposite aspect; they contained separate membranes and cords; there was no hæmorrhage or untoward symptom; the children were well formed, and of average size, having regard to gender (female) and plurality of birth. The first child did well. Although my patient was rather a delicate woman, I was not called on to see her afterwards, but have been informed she made an excellent recovery.

### INDIAN MEDICAL NOTES—No. XXII.

(FROM OUR SPECIAL CORRESPONDENT.)

SIMLA, July, 1874.

#### TOPOGRAPHY OF MEERUT.

UNFORTUNATELY, it is only by dribblets, spasmodically from books, individuals, and personal observation, medical events and facts are gleaned concerning Meerut, instead of being found cut and dry. Yet, what becomes of all the reports? where are all the Blue Books? where is all the dearly bought experience of the past to warn and teach those who come after? English books are very expensive—for instance, Murchison, thirty-two shillings—are heavy to carry, if spared by the damp, the ants, or the rats; and as medical officers are daily liable to be *ubique quo fas et gloria ducunt*, or rather, wherever required, it is impossible to keep more than travelling necessities, as before remarked. With this apology, the water of Meerut may thus be described: Total hardness, 12; mineral matters, 14.35; total solids, 16.25; lime estimated as carbonate 7.5; chlorine, estimated as chloride of sodium, 1.6; sulphuric acid, estimated as sulphate of soda, 2.3; alkaline carbonates, estimated as carbonate of

soda, '95. Every chemical examiner praises the water. Covered wells, pumps, the purchase of land, to the exclusion of natives and their habitations, figure amongst the stereotyped suggestions. Down some wells sentimental lovers urinate together, by way of soul communion, and formerly it was said in Oude that water hardened the soldiers, as Damascus tempered their sword-blades. Up at certain elevations, where various fevers through a variety of causes are sometimes welcomed, the contamination of water appears neutralised by the splendid air. In 1866, at a school of 67 boys, 17 in the month of July were attacked by enteric fever, a master also affected, yet not a single death. The ages ranged from 5 to 24, the average 14; those who had been there three years escaped; fever ranged from 14 to 45 days, the average 29; maximum temperature 103°; pulse 148, often feeble, jerky, or dichrotous; eruption out on 15th day; generally noticed on 10 boys: abdominal tenderness, 15; tympanitis, 14; gurgling, 10; mostly in right iliac fossa, headache, 11; delirium, 7; epistaxis, 5; deafness, 4; diarrhoea, 14. Dr. Clarke found mercurials, quinine, and chlorate of potash useless, but acetate of lead, turpentine, good air, judicious diet, castor-oil (in eleven instances), were valuable remedies. Wine and brandy only required in two cases. The air of the Himalayas is the finest in the world, as will be discovered gradually by invalids who can afford to leave home, provided the remedy is not deferred too late. A phthisical lady who could not live in England is here wonderfully healthy and strong, at least, she was waltzing vigorously last night, and promised her pleasant company to join our riding party this afternoon. Lord Elgin and Sir Sydney Cotton were opposed to very lofty elevations, as strongly as Sir Charles Napier was in favour of Mean Meer. Lord Dalhousie, Lord and Lady Canning, amongst many others, contracted disease in the Plains; so did poor Dr. Beatson, who was buried here last week. At his funeral, besides the Simla Volunteers, a mountain battery of artillery attended—the guns, wheels, carriage, ammunition, carried by various mules—everything perfect, and should the opportunity occur of medically describing Simla, this system of warfare will be discussed. Lord Elgin, who sleeps on the heights of Dhurmsala, beneath the snow-clad pinnacles where, according to native tradition, the Creator and the angels dwell, found the keen mountain air too much for his enfeebled heart. So do others. I am attending a very bright little lady, who complains of fatigue, smothering, want of sleep; but what with diet, beef-juice, quinine, iron, and strychnine, judicious exercise, clothing, change of house, she will soon be right, and forget her consumptive history. Sir Sydney Cotton was in favour of Cheratt, 3000 feet: bring the men down on elephants; nothing like marches, drills, camps of exercise, temporary barracks, gardens, cricket, plenty of officers living amidst the men, gymnastics, road-making. Reckless of the sun, averse to coddling soldiers, he pointed out how easy it was to snip a telegraphic wire, or to tear up railway sleepers, and that "instant action" must ever be the motto. Instant action is required in times of pestilence, to have tents, carriage, provisions, and stores ready to fly and to keep running until the plague is shaken off and this brings me back to continue the account of Meerut as furnished to the Royal Commission by Dr. Wilkie and others.

On the 21st of May, 1860, the diseases of this then favourite, popular, and healthy station, included intermittent, remittent, and continued fevers, acute and chronic dysentery, bilious and spasmodic cholera, distinct and confluent small-pox, acute and chronic rheumatism. Hogs rare, dust abundant, elevation above the nearest water, four miles distant, about 110 feet; no rice or indigo cultivated near; water found at 18 feet in dry weather, and 16 feet depth during the rains; extent of tank surface about 2,229,397 feet about the station, which was built originally on new ground. The native city, about two miles distant, the bazaars, and the gaol appear to have had their share of sickness. The 6th Dragoon Guards, the 35th, and a native infantry regiment, all enjoyed better health than at

other stations, no part of the cantonment sicklier than another. The subsoil water question does not appear to have been ventilated to any extent; at present, throughout the district, as (I think) before mentioned, thanks to canals, from 18 feet to 8 feet has the water level risen, a water-logged soil, in fact, conducive to paludal fevers.

The burial ground north of the station, 400 yards from any barrack (prevailing winds westerly), area, 56,000 square yards, sandy subsoil; each grave 2½ feet wide, 4½ feet deep, separated 2½ feet if of earth never reopened; those of brick, occasionally, to admit a second tenant. Years ago I wrote a note about the disposal of the dead, and I think now, as then, in favour of shallow graves planted with shrubs of rapid growth and greedy roots. Cannot the botanist help us? Our poor native doctor was burnt the other day; and during the mutiny certain ladies were thus transformed dust to dust, ashes to ashes. According to evidence, the sick-list here from August to October ran heavy, and from March to May variola or measles appeared; scurvy or guinea-worm rare. Calculated roughly, the percentage of hospital admissions to total admissions ran—fevers, 56·00, dysentery, 2·75, cholera, 0·09, variola the same, rheumatism, 3·24; whilst the percentage of deaths to total deaths recorded—fevers, 25·00, dysentery, 24, cholera, 0·04, variola, 0·08, rheumatism, 0·04. Venereal cases were about 8 per cent to total admissions.

The amusements and means of instruction consisted only of balls, courts, skittle-grounds, a theatre, and schools; and how the men confined to barracks from 8 a.m. to 4·30 p.m. passed the time is not stated. The amount of drunkenness is apparently small.

The barracks, then accommodating 800 artillery, two regiments of cavalry, two regiments of infantry, Queen's and native troops evenly divided, included about 4,227 men, in 705 rooms, built in 1810, 1819—indeed, gradually on to 1854, 1858, 1859. *Bedsteads*, wooden frames laced with tape or cane; *mattress*, quilted cotton; *lavatories*, one per company; also two plunge-baths per regiment; *privies and urinals* drained into cesspools, the contents of the former received into copper pans and removed by filth-carts daily; these cesspools distant from the wells 670 feet, from the barracks 60 feet, were 4½ feet in diameter by 40 feet deep, and periodically cleansed by opening the tops and bucketing out the contents. *Drainage* conducted by wide open masonry drains to a tank 1,700 feet from the barracks, also to a nullah 5,000 feet distant. The bazaars had self-supporting latrines, each tenant responsible for the cleanliness of house and surroundings; also the two slaughter-houses were constantly inspected. The *stables*, consisting of sheds supported on pillars, were 100 yards from the barracks, and 800 from the hospital; no dung-heaps.

At the *canteen* each man on payment could have two drams *per diem*, at noon and sunset, else a pint of beer and a dram of rum. For more than a quart bottle of country liquor leaving the premises the publican required a pass.

*Rations*.—Bread, 1 lb., beef or mutton, 1 lb.; rice, 4 oz.; sugar, 1 3-4th oz.; black tea, 5-7th oz.; or coffee, 1 3-7th oz.; salt, 1 oz.; split firewood, 8 lbs.; vegetables, 1 lb.; the stoppage about fivepence, the cost one shilling.

*Duties*.—Drills in cold weather up to 10 a.m., and after 4 p.m. about an hour or a little longer; in hot weather before 6 and after 5; about fourteen nights in bed.

Dr. Wilkie, the principal medical officer, after stating the healthy indications of sugar-cane, the objections to black soil, clay, and kunkur, expressed his views: Soldiers at 22 landing ready drilled in the cold weather should at once, by marching, bullock, train, or boats, be sent to their regiments; should serve in India 12 years, and if invalided, not to embark later than February. Acclimatisation on the Hills was not considered feasible; the dews and fogs, the chills of night and morning, the dangers of the sun, aggravated by intemperance, figure amongst other hints. The barracks built of bricks set in lime mortar, the roofs supported on timber trusses and

covered with thatching, grass, or tiles; the floors of stone, brick on edge, or brick flat with concrete terracing over, generally raised 2 feet above the ground, no passage of air underneath; ventilated by doors, windows, and roof apertures, verandahs on both sides—one for messing, another for recreation—lighted with oil-lamps at night. The dimensions of certain rooms were as follows:—

Barrack Rooms.	Regulation number of men in each.	Length.	Breadth.	Height.	Cubic contents.	Cubic feet per man.	Superficial area of floor sq' ft.
<i>Rum go down.</i>							
8 centre wards...	90	215	30	20	129,000	1,400	71
4 side .....	45	215	10	20	43,000	955	47
Other barracks...	74	205	22	20½	119,515	1,615	60 70-74
Booket lines...	72	198	24	20	96,040	1,320	66
4 rooms .....	1	18	114	20	4,050	..	202
Camel shed boks.	68	201	27	14	75,973	1,117	79
Cavalry .....	68	210½	24	26½	133,878	1,968	74
Ditto .....	34	..	12	16½	41,679	1,225	74
Other barracks...	37	205	9½	16½	32,133	863	52
Ditto .....	66	193	24	26½	125,928	1,908	72
Ditto .....	36	..	12	16½	36,204	1,089	66
Infantry .....	16	50	24	26	30,000	1,875	75
Married barracks	1	18	11	22½	4,555	4,555	188
Guard room .....	14	49	18	17	30,980	220	122
Cavalry hospital	104	298	25	20	149,250	1,435 10-104	71 78-104
Artillery .....	100	295	25	22	162,250	1,622	73
Infantry .....	180	454½	25	15½	168,388	1,052	67
Infantry d'tched	64	174	25	15½	67,435	1,053	168

A guard room is only occupied by a few.

Let us now turn to a very compact report of the cholera in 1861 in Northern India, a work published in 1864, wherein Meerut artillery and infantry barracks are described as intended for 30 men, 50 buildings facing east and west arranged in 4 parallel lines, with intervals of 40 yards from east to west, 30 from north to south, each barrack 50 feet long, 24 broad, 25 high, communicating through open arches with an inner verandah, outside another verandah, 1,800 cubic feet, 100 superficial per man. In the cavalry lines each building 210 feet long, 90 men, 1,900 cubic feet. The artillery occupied 2 large buildings each for 72 men; also 3 temporary barracks near the Rum go down, each containing a space 230 feet long, 51 broad, 23 high; roof supported by a row of arches, each 12 feet span; the barrack in 3 compartments, communicating by arches 12 feet span and 18 feet high; an outer verandah 9 feet broad on each side of the building.

Hospital of the Artillery—2 wings separated by dispensary; south wing, 2 wards each 60 long, 24 broad, 26 high; 20 patients; double verandah. North wing, 3 wards, one 96 long, for 32 patients; the other smaller one for 16, the other for 12—1,700 cubic and 72 superficial feet per patient; the latrine of the north wing standing on the east front of the large ward; the back faces the main building objectionably as regards effluvia.

The Infantry Hospital, for 100 patients, consisted of 3 wards, one 102 feet long, 24 broad, 26 high; the others 30 feet long—1,790 cubic feet per patient. There was also an old infantry hospital, besides one for the Royal Horse Artillery, the Female Hospital, adapted for 24 patients, the Cavalry Hospital, the east front of these buildings generally obstructed by walls, latrines, or other accessories.

Of the 35th Regiment, the first man attacked with cholera, July 11th, was a syphilitic patient in hospital, the disease in this instance contagious; the hospital matron, the wife of the hospital sergeant, also fatally stricken. Thirteen infantry barracks escaped. Slight cases were treated outside the dreaded hospital. The attachment of the men to Dr. Chambers, preventing panic, and the camping out on the only dry ground on the Mall proved beneficial.

The three artillery barracks, occupied by 4 Troop 1st Brigade Horse Artillery, 115 strong, escaped, whilst another troop had five cases. The recruit dépôt, 221 strong, suffered severely, for, according to Dr. Banister, these were growing lads with unsettled constitutions,

battling for the first time against the heat and depression of a tropical summer, and all had suffered in April, May, and June from bowel complaints and continued fever. The influence of panic, the necessity for early evacuation of barracks, the susceptibility of officers, the immunity of natives is alluded to.

In a certain house, in 1845, died General Considine; in the same low damp locality a young lady died in 1861; open drains, noxious privies, or marshy tanks blamed for the cholera. In a capital house in a park, on a clay soil, and surrounded by obstructed drains, an officer fell a victim. Five officers, overcrowded in one house, had, 35 servants, horses, stables, servants' families, cow-dung, and litter in close proximity, as if to welcome pestilence. The line of drainage divided the sandy surface of the native lines from the clay soil of the Europeans; and in every epidemic wherever this dry sandy soil was absent, or replaced by sterile clay, the disease proved most virulent. The prevalence of fever in certain localities north of Meerut in 1867 and 1868 brought out the elaborate report of the late Mr. Cutcliffe, who found miserable fever-stricken villagers living in filth on low wet spongy lands overgrown with rank vegetation, their drinking-water often polluted, the ground and well-water loaded with that efflorescence of carbonate, sulphate of soda, chloride of sodium, termed Reh, and owing to the Ganges and Jumna Canals most probably, he considered that subsoil, soakage, lodgment and stagnation of water, insufficient drainage, &c., might account for excessive disease. Cholera in 1872 was very severe. Such are some of the lessons of the past, and the teachings of experience have led to many improvements.

The indulgence of the reader is solicited for retrogressive prolixity in the endeavour fully to describe the popular station of Meerut.

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"SALUS POPULI SUPREMA LEX."

WEDNESDAY, AUGUST 12, 1874.

PUBLIC HEALTH.

II.

IN our issue of July 29 we made some remarks on Mr. Simon's new report, confining them chiefly, however, to the subject of cholera and its prevention. In that same report—New Series, No. 1—the Medical Officer of the Privy Council and Local Government Board furnishes us with a concise statement of what may be expected from his office in the shape of reports. They will no doubt always illustrate the practical effect of such laws as may be in force for the prevention of disease; but this is not all, and it is interesting to observe the out-look of one so favourably placed as Mr. Simon. We will therefore

briefly summarise his statement of what he considers should be the nature of the annual reports to be in future made under the Public Health Acts.

He assumes that the Local Government Board will from time to time determine what degree of central vigilance as to the local prevention of disease shall be represented by its proceedings under the Act, and will regulate in accordance with such standard of work the staff by which the work has to be executed. The medical officer of the Board will annually give a report of the proceedings so taken. This will be substantially a report on the new sanitary administration of the country, from the standpoint of results; and which, so far as means for it exist, would aim at exhibiting, for the information of Parliament, what, year by year, are the chief existing excesses of disease in the several sanitary divisions of England, and what the relation of such excesses to insufficiencies of law or administration. Incidentally he thinks it would probably be of advantage to the public service that the reporter should use the same annual opportunity for submitting to the Board, with a view to publication, such new knowledge as the Medical Department might during the past year have acquired with reference to the prevention of disease, and such new memoranda of advice on sanitary subjects as the growing experience of the department might be held to justify.

From among the many points of local relation which the Board's sanitary superintendence must include, there is one which Mr. Simon specially mentions, with the acknowledgment that, in love and honour for his own profession, he regards it with warm personal interest; but believing that he may, nevertheless, without partiality describe it as of fundamental interest to the working of the scheme of recent legislation.

While watching, from the point of view of results, the action taken by local authorities throughout England for the better prevention of disease, the Board will be superintending the exact province of work for which the respective local authorities under the Act of 1872 are required to appoint their medical officers of health; and the inspections under the Public Health Act, 1858, will therefore, so far as they extend, give the Board knowledge of the working of that new institution in the various forms in which it is being tried throughout the country, and in which, in regard of about half the number of cases, the trial is with the Board's part-payment and particular responsibility. Such inspections, too, as bringing the Board's Medical Department into direct relation with the local officers of health, and giving the department opportunity to contribute any assistance in its power to the success of the local institution, will, where they extend, represent an object which the Royal Sanitary Commission, in making the recommendations on which the Public Health Acts of 1871 and 1872 were founded, put forward as an element of their scheme.

Mr. Simon says that to one in his position it must always be among the highest of ambitions to be able to see the experience of this department really conducive to the information and influence of younger fellow-labourers in other parts of the same great field of public service; and it would be affectation to deny that, during many early years of the new organisation, relations in that sense between the central and local services may often be of important, and sometimes of indispensable use to the latter. Nevertheless, he thinks that, though from the nature of the case the relation in these earlier years must

chiefly consist in assistance which the central office can so render, succeeding years will more and more bring the central office under obligation to local contributors of knowledge, and to local illustrations of progress. And year by year it will surely grow to be among the most useful, as it must also be among the happiest, duties of the annual reporter under the Public Health Act, 1858, to represent, for the information of all the officers of health of the kingdom, such additional fruits of scientific observation, and such new evidences of practical success, as will have come to the Board's knowledge from among their number.

Medical officers of health will be encouraged by these words, feeling that such services as it may be their lot to render to sanitary science will not be unappreciated.

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## Notes on Current Topics.

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### Sick Torture in a London Workhouse.

WE read with much difficulty of credence a report made last week to the Guardians of the Holborn Union of the existence of an atrocity which it is inconceivable could have occurred in the heart of London, and in a public institution. The master of St. Luke's Workhouse reported that on the 14th ult. he discovered a dying man, named Joseph Hardinge, aged 64, with his feet tied to the bed by means of two handkerchiefs, and a sheet so tightly tied over his chest to each side of the bed that he (the master) could not insert his hand between the bandages and the man's body. He had been thus pinioned for many hours, and died early on the following morning. He was in the last stage of pneumonia, and according to the evidence of one of the visiting committee, "was allowed to writhe in torture for several hours bound in these cruel swathes."

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### The Plea of Moral Insanity.

OUR readers will recollect that in a celebrated murder trial some time ago an attempt was made to obtain an acquittal for the prisoner on the plea that he was the victim of an innate depravity of mind which should be considered to render him irresponsible for his acts. It was admitted that there was no symptom or history of previous alienation of mind, and the theory of moral insanity was based upon the supposition that the prisoner appeared to be unable to realise that his crime was crime at all, and considered himself self-justified in what he had done. In spite of the evidence of a very distinguished psychologist, who thought that this condition of mind was enough to constitute irresponsibility, the prisoner was very properly convicted and hanged. To deal otherwise with him would be to admit that the law was to be guided by his own estimate of his guilt, and we observe that this view has been confirmed last week by Mr. Justice Brett, who in charging the grand jury at Exeter, pointed out that for a person to be freed from the result of crime it was not sufficient to show that he acted differently from persons in the ordinary course of life, but it must be shown that he was so far insane as not to know the nature of the act he was committing, and not to know right from wrong. The

duty of those who had to administer the law was not to act upon their view of what the law should be, but to administer the law as they found it.

### Remarkable Decrease in Dispensary Relief in Ireland.

ON comparing the figures for the two last years the Local Government Board observe that there has been a decrease for the last compared with the previous year in each class of cases in all the provinces. Of the cases attended at the dispensaries there has been a decrease of 715 cases in Ulster, of 5,288 in Munster, of 1,291 in Leinster, and of 5,499 in Connaught; producing a total decrease of 12,793 cases. Of the cases attended at the patients' homes there has also been a uniform decrease for the last year, amounting to 2,757 cases for Ulster, 6,068 for Munster, 8,177 for Leinster, and 2,208 for Connaught; giving for all Ireland a decrease in dispensary cases of 12,793, and of domiciliary cases of 19,210; such uniform decrease in both classes of cases, between two consecutive years, has occurred only twice before since the establishment of the present dispensary system, viz., between 1865 and 1866, and between 1870 and 1871. During the same period of twenty years the annual number of cases receiving gratuitous dispensary relief has risen from 690,411 to 692,026, notwithstanding the decrease during the same time of the population of Ireland, not falling much short of a million. In last year's report the Local Government Board had occasion to remark on comparing the numbers of cases for the then two last years, a great diminution of dispensary cases in each province, amounting in the whole to 34,321 cases; but, on the contrary, an increase of cases attended at the patients' homes, giving a total of 17,075 cases.

### Female Doctors.

WHILE we have from the first urged upon the profession the inexpediency of offering any factious opposition to the admission of women to its ranks, we have demanded, in the name of that decency which is apparently considered effete, that females should acquire their knowledge with due regard to those conventionalities which we usually call modesty, and that those ladies who are seeking admission to medical practice should pursue their studies without offence to that prejudice in favour of decency to which some of them appear to be insensible. We have, moreover, expressed our belief that a few years' experience would prove that female medical doctoring is not a want of the day, and is beyond the physical capacity and discordant with the anticipations of the great majority of the sex.

The *Saturday Review* takes exactly a similar view of the matter in a recent able article.

"The medical profession," it says, "seems to be the special object of women's choice, because, as is said, women, being good and tender nurses, are supposed to be therefore easily convertible into skilful physicians and dexterous surgeons. It is said that women are specially well fitted to attend to the diseases of children. It is also asserted that there is a scarcity of medical men, and the women might supply this deficiency. It does not require much examination to see that these arguments are feeble and fallacious. It does not at all follow that a kind and watchful nurse will become a skilful and experienced physician, full of resources, ready in applying them, or a

dexterous surgeon, cool and unfalter in difficulties that would paralyse a weaker heart. It does not appear to be true the women generally desire to be attended by women, and it is absurd to suppose that less skill is required in the treating the diseases of children than of grown up persons. Lastly, we believe that the reputed scarcity of medical men is due, not to want of young men ready to enter the profession, but to the greater strictness of the examinations which it is necessary to pass—a difficulty which must equally present itself in the case of women, and which, as a recent case is shown, is not likely to be surmounted by them. No one who knows what the course of study of a medical student is can doubt that a woman must be of very exceptional character if she can pass through these scenes and still retain undimmed those characteristics which are the beauty and ornament of women's life. If, again, women do, as some few have done succeed in obtaining entrance to the medical profession, can she be supposed to be equal to all the emergencies, to the labour and the fatigue which the practice of that profession entails? All cannot settle in fashionable West End localities, where labour is light, and where duties are almost pleasure. The rough must be accepted as well as the smooth. Have women ever made themselves acquainted with the life of a medical practitioner in a thinly-peopled region of Wales or of Westmoreland—riding on horseback to places where no vehicle can travel, doing the work by night, for whom the day does not suffice, regardless of rest, careless of weather."

### Cough.

SOME new experiments on cough are related in *Virchow's Archives* by Dr. O. Kohte, of Strasburg. The first experiments of a scientific character on cough were made by Krimer, 1819. He considered cough as caused principally by irritation of the pneumogastric nerves. Afterwards Budge asserted that only primary cough was generated in the larynx. Then Truvelhier caused cough by irritation of the pneumo-gastric, which observation was confirmed by Romberg and Budge. After this Rosenthal concluded from experiments, that irritation of the superior laryngeal nerve is the frequent cause of cough. Recent experiments published by Nothnagel indicate that irritation of the membrane of the trachea and bronchi causes cough, and that not only the superior laryngeal nerve, but also other fibres of the pneumogastric, are apt, when irritated, to call forth cough.

Clinical observations lead Dr. Kohte to the belief that the physiological experiments on cough are not concluded. He, therefore, made a series of experiments with dogs and cats, without the application of narcotising substances. The cough was originated by mechanical, chemical, thermal (ice), or electrical irritation.

His results are given by the *Detroit Review* as follows:

1. *Larynx*.—By former experiments it is already proved that cough may be called forth by irritation of the larynx. The free margin of the vocal cords did not prove to be irritable. The inter-arytenoid fossa was very sensitive, and likewise irritation of the glosso-epiglottic plica and the ary-epiglottic plicæ caused cough.

2. *Parenchyma of the Lungs*.—The author could not decide the question, if irritation of the parenchyma and the alveolæ causes cough or not.

3. *Trachea and Bronchi*.—There was scarcely any doubt that cough arises from the irritation of the mucous membrane of these organs. Irritation on the place of bifurcation acts most powerfully.

4. *Pleura*.—Clinical observations speak for the appearance of cough in many cases of simple pleuritis. The same is proved by the author's experiments. Cough could be called forth with ease by irritation near the root of the lungs. Sometimes he applied ice, sometimes tincture of iodine or simple pressure, for this purpose. Irritation of the pleura costalis produced cough, but irritation of the pleura pulmonalis did not.

5. *Pericardium*.—Though pathological observations are in favour of the view that irritation of the pericardium produces cough, experiments failed to support it.

6. *Pharynx*.—In most cases irritation of its mucous membrane produced cough.

7. *Œsophagus and Stomach*.—Cough of a more croupous character was caused by pulling and pinching of the œsophagus, and by electrical irritation of the same. Simple irritation of its mucous membrane was ineffectual. Experiments on the stomach had only negative results. But there is no doubt that sometimes there will be noticed cough originated by irritation of the pneumogastric; for instance, when worms are present in the stomach or duodenum, or in cases of cancer of the stomach.

8. *Pneumogastric, Superior Laryngeal, Recurrent, Pharyngeal Nerves*.—Mechanical irritation of these nerves, except the recurrent, caused in all cases cough. Experiments with the recurrent had only negative results. When the author cut through the pneumogastric of one side, and then irritated the bronchi and pleura of the same side, he observed cough after a while. This proves a connection of fibres between both pneumogastric nerves.

9. *Central Cough*.—As some authorities consider the observations made in this respect as not decisive, the author thought it necessary to experiment on the central organs. He found that mechanical as well as electrical irritation of the cerebellum and medulla oblongata originated cough.

10. *Centre of Cough*.—Based upon his experiments, the author thinks that this centre lies a little higher than that for the muscles of inspiration.

### The Plague.

THE plague has again broken out on the Lower Euphrates and in Northern Africa, and has appeared principally in those localities which were the scenes of former outbreaks. It first appeared in February last, in a tribe of Affij Arabs, numbering about 3,000, of whom 250 fell victims in the two following months. The principal symptoms observed were: Intense fever, delirium, vomiting, diarrhœa, buboes in the groins and armpits, generally followed by death in a short time.

### Scarlatina in Ireland.

THE Irish Registrar-General calls attention in his last weekly report to the continued prevalence of scarlatina in Dublin. The zymotics caused in the week 31 deaths in Dublin, of which 13 were from the disease, and this number completes a tale of 546 deaths which have resulted from the epidemic within ten months. At the last meeting of the Mullingar Guardians a letter was read

from the Local Government Board enclosing observations appended to a report of the medical officer of the Tyrrellspass Dispensary District, in which he states that a very severe epidemic of scarlatina had been prevalent in the district, and had been increasing for the last fortnight, but the latter cases seem somewhat milder.

A similar report was also forwarded in which it was stated that scarlatina and measles had been very prevalent in the Mullingar District for a considerable period, and that several cases of the former disease were of a severe type, and terminated fatally.

### Surgeon-General Beatson.

A CONTEMPORARY has the following biography of the late Surgeon-General George Stewart Beatson, M.D., C.B., Honorary Physician to the Queen, and Principal Medical Officer, British Forces in India:—

"Dr. Beatson had been in delicate health for some time past, suffering from occasional and severe attacks of fever. The immediate cause of his death was, we believe, disease of the heart and pleurisy. We extract the following short account of his career from the *Civil and Military Gazette*:

"He was born on the 6th of May, 1814. He entered the Medical Service as an Assistant-Surgeon on the 13th July, 1838, was promoted to Surgeon on 28th August, 1846, to Deputy Inspector-General of Hospitals in December 1858, and to Inspector-General in May, 1863. As Surgeon he served in the 51st Light Infantry throughout the Burmese War of 1852-53, was present on board the steam frigate *Feroze* in action on the Rangoon River, in the capture of the great Dagon Pagoda, and at the defence of Prome—medal with clasp for Pegu. He came out to Madras as Deputy Inspector-General of the British Forces in that Presidency in June, 1860, and attaining the position of Inspector-General, was sent to the Bengal Command as Inspector-General of the British Medical Department in India on the 1st of May, 1863. On expiration of his tour of service as such, he went home in March, 1868, and for the second time came out to Bengal as Surgeon-General and Principal Medical Officer, British Forces in India, on the 13th of March, 1872."

"The *Gazette of India* publishes the following notification, dated the 9th of June:—

"His Excellency the Governor-General in Council has received with much regret the intelligence of the death, at Simla, on the 7th inst., of Surgeon-General G. S. Beatson, M.D., C.B.

"Dr. Beatson had twice, in the course of a long and honourable career, filled the highest post in the British Medical Service in India with credit to himself and advantage to the State, and the Government of India sincerely lament the loss of this valuable public servant."

### The Apothecary's Oath.

Now that the Pharmacy Bill is in a forward state, the following may be suggestive:—

Who is the guardian saint of the apothecaries we do not know; but somebody has disinterred an ancient oath which formerly had to be taken by every French pharmacist. It runs thus:

"I take to witness, before all, God the Creator of the Universe, in three persons, that during the whole of my life I will observe that which follows:

"I will live and die in the Christian faith. I will honour my parents. I will honour the physicians and masters under whom I have studied. I will never say anything that shall be injurious to the seniors of our order, or to others. I will adorn with my best the dignity of the art, and I will not reveal its secrets. I will do nothing im-



prudently nor through hope of gain. In acute sickness I will not give purgatives without the order of the physician. I will not touch the secret parts, except to apply remedies to them. I will keep the secrets of the patients. I will administer no poison, neither will I allow it to be administered, even to my enemies. I will not give an abortive remedy, even to provoke the expulsion of a foetus, except upon the order of a physician. I will not alter the prescriptions of physicians. I will never substitute one remedy for another without their knowledge. I will discourage the fatal practice of empirics. I will refuse to no person my legitimate assistance. I will not keep in my pharmacy stale or badly prepared medicaments.

"In making and observing these rules, may God assist me. *Ainsi soit-il!*"

### A Prolific Man.

THE American journals record the case of a German living in Pennsylvania who is the father of forty-one children. He was married in Germany in 1840. His first wife produced in eight years seventeen children, twins in two births, and triplets in four births. His second wife had fifteen children, of which ten were consecutive twins. His third and present wife has already presented him with nine children. Happy man! and should we say woman, to obtain such a husband!

### Hydrophobia occurring in Two Years and a Half after the reception of the Bite of a Rabid Dog.

DR. FERCOL has lately read before the *Académie de Médecine* a case of this affection which presents some points of interest.

The patient, a medical man, æt. 48, came to his *Maison de Santé* at eight o'clock one morning. His manner was strange and "*égaré*," his answers short, pupils dilated, and he had passed the previous night in so excited a state that he had written over fifty letters. He had an intense dislike to liquids, and he brought with him some oesophageal bougies to see and make him drink in spite of himself. He asked for an emetic to get rid of the bile which was choking him; he also asked for a bath, and on presenting to him a mirror, he immediately turned away his head, and had at the 'same time a severe laryngeal spasm, and looked like a man who had suddenly been plunged in cold water. On being presented with a tumbler, even when empty, he immediately pushed it away; a handkerchief shaken before him gave the same results. He had eaten nothing for two days; he felt his mouth dry. On examination he was found to have a scar on the left hand, between the second and third finger, where he admitted he had been bitten long previously by a rabid dog; he felt no pain, and never did during his illness, in the spot, but had some at the point of the biceps. The case proceeded from bad to worse, with severe laryngeal spasms, choking sensations, and spitting, and he finally became intensely delirious and ungovernable. He was under observation from eight in the morning of the 18th June, and died at three in the morning of the 20th, 1874.

On inquiry it was ascertained that he was bitten in December, 1871, by a pet dog, which he had observed for several days before the accident, to have been irritable and snapping at everything in the way, and which was finally

killed and examined by a veterinary surgeon, who pronounced it to have had hydrophobia.

Two other persons had been bitten, but after some days' interval, by the same dog, but did not suffer. The treatment consisted chiefly in hypodermic injections of morphia.

On post-mortem examination, the bronchi were found full of frothy mucus, a few tubercles in the lungs. The dura and pia mater of the cord were congested, the vessels distended, with induration of the cauda equina, and ecchymoses at the origins of the intercostal nerves.

### The Privy Council Rules for the Management of Lunatic Asylums in Ireland.

IN the House of Commons last week, Mr. Synan asked the Chief Secretary for Ireland if he could give any assurance that the Irish Government will revise the rules and regulations for the Government of lunatic asylums in Ireland under the 8 and 9 Vic., cap. 107-8-9, with a view "to alter or revoke" the rule in relation to tenders which has given offence to some governors of lunatic asylums in that country.

In reply, Sir M. H. Beach said that the rules and regulations for the government of Irish lunatic asylums have recently been carefully revised by a committee of the Irish Privy Council specially appointed for the purpose, and consisting of gentlemen whose names gave weight to the decision they had come to. One of the rules made after this revision was objected to by the Governors of the Limerick Lunatic Asylum, and on an inquiry being addressed by the Irish Government to the governors of other lunatic asylums in Ireland, with a view of ascertaining whether they also objected to the rule, it was found that few, if any, agreed with the Governors of the Limerick Lunatic Asylum. The rule to which they objected was one requiring that rejected tenders should be sent to the office of the Inspectors of Lunatic Asylums in Dublin for their inspection. The Governors of the Limerick Lunatic Asylum are willing that tenders should be inspected by the Inspectors of Lunatic Asylums on their visit. The difference seems to me so unimportant that I confess I am surprised at the strange objection made on the part of the governors of the lunatic asylums, but as some of them have resigned, and I understand that others are likely to, I shall consider if it is possible to alter the rule in accordance with their wishes. It is certainly important, however, that there should be a uniform rule for the whole of Ireland.

We are gratified that the very dignified course adopted by the Governors of the Limerick Asylum, who refused to hold office any longer, has induced the Chief Secretary to contemplate an alteration of the obnoxious rules. We may venture, however, to remind Sir M. H. Beach that the rejected tender rule is nothing more than a selected subject of objection on the part of boards of governors, and that its amendment will go a very little way towards removing the causes of dissatisfaction. The actual grievance of which not only that of Limerick, but most other boards complain, is that the whole policy of these new rules is that which has for so many years been pursued by Dr. Nugent, the concentration of all authority in the inspectors and their nominees, the president superintendent, and the lowering of the function of the board

of governors and the visiting physician. These rules aim, as far as it can be confessed by the author of them, at the hedging of the officers from any responsibility to the public; and we maintain that that policy is most dangerous to the Irish lunacy system.

### The Question of Bony Union in Intra-Capsular Fracture of the Femur.

M. HOUEL, Curator of the Dupuytren Museum, has lately exhibited several preparations from this museum which prove that bony union in this form of fracture is not so rare as is generally supposed.

### New and Coming Books in Medicine, Surgery, and Science.

BARRER (George), *The Student's Pocket Companion to the British and London Pharmacopœias of 1851 and 1869.* 7th ed. 5s.

Braithwaite, A. *Commentary on Midwifery and the Diseases of Women and Children.* 2s.

Foster (Balthazar), *Clinical Medicine: Lectures and Essays.* 10s. 6d.

Foster (M.), *Physiology.* 1s.

Garrod (Alfred Baring), *The Essentials of Materia Medica and Therapeutics.* 12s. 6d.

Pereira (Dr.), *Elements of Materia Medica and Therapeutics.* 25s.

Schaible (Charles H.), *First Help in Accidents.* New ed. 1s.

Thomson's *Conspectus.* Adapted to the British Pharmacopœia. New ed., with a Supplement containing Notices of the New Medicines and Preparations contained in the Additions of the British Pharmacopœia. 6s.

Watts (Robert George), *Asthma: A Practical Treatise.* 1s.

Blake (C. Carter), *Sulphur in Iceland.* 1s.

Grove (Sir W. R.), *The Correlation of Physical Forces.* 6th ed. 15s.

Macmillan (Rev. Hugh), *First Forms of Vegetation.* 2nd ed. 6s.

#### Announcements.

*Diseases of the Kidney and Urinary Derangements.* By W. Howship Dickinson, M.D. New ed. 8vo.

*A Dictionary of Medicine.* Edited by Richard Quain, M.D. 1 vol. 8vo.

*On the Maintenance of Health: for Lay Readers.* By John Milner Fothergill, M.D.

*On the Curative Effects of Baths and Waters: being a Handbook to the Spas of Europe.* By Dr. J. Braun. Trans. by Herman Weber, M.D.

*Medical Charity: its Abuses, and How to Remedy Them.* By John Chapman, M.D.

*Economic Geology; or, Geology in its Relations to the Arts and Manufactures.* By David Page, LL.D.

*Primeval World of Switzerland.* By Dr. Oswald Heer.

*The Sun: an Account of the Principal Modern Discoveries respecting the Structure of the Sun of our System.* By F. Secchi.

*The Star Depths: or, Other Suns than Ours.* By R. A. Proctor. Cr. 8vo.

*The Elements of Physics.* By Neil Arnott, M.D. 7th ed. Edited by A. Bain and A. T aylor.

*Introduction to Experimental Physics.* By Adolf F. Weinhold. 8vo.

*The Transit of Venus.* By George Forbes, B.A.,  
*A Popular Dictionary of Inventions, Origins, and Discoveries.* 8vo.

### Precocious Marriages.

THE Registrar of Providence calls attention to the defective marriage laws in the Island of Rhodes, which allow minors to marry without the knowledge or consent of their parents, and he gives, in example of the disparities, the following illustration in one year: 18 and 14; 17 and 15; 16 and 15; 61 and 15; 76 and 13. As he remarks, Providence is thus converted into a vast Gretna Green.

### Functions of the Brain.

DR. H. P. VON PETERSHAUSEN epitomises for the *Detroit Review* some experiments on the functions of the brain, by Prof. H. Nothnagel, of Freiburg, and related in *Virchow's Archives*. Prof. Nothnagel has performed another series of experiments on rabbits, to ascertain the seat of the faculties of the different parts of the brain. At this time he chose to exclude from action the lenticular nuclei of the corpora striata (i.e., the gray centre of the extra ventricular portion of the corpora striata). The most prominent symptoms after destruction of the nuclei were the following: Voluntary motion is wanting; slight irritation of the skin causes movements of the irritated parts, or a jumping motion; the hemispheres are active and all physical processes are probably undisturbed.

By the extirpation of both nuclei must, therefore, be interrupted the nervous connection, which leads the psycho-motor impulses from the places of their origin in the hemispheres to the periphery. This agrees well with the clinical experiences, as every physician knows, that extravasations in one of the lenticular nuclei causes persistent hemiplegia.

Although not so definite, the professor adds his observations on the nucleus caudatus. He thinks that this is related to all those combined forms of motion, which may be called forth by a psychical act, and which after this continue to be automatical motions.

### Treatment of Incontinence of Urine in Children.

In a paper read before the Obstetrical Society of Dublin by Dr. Kennedy, he strongly advocated the following measures for the cure of this distressing complaint:—

1. Training patients to retain their water in the day-time as long as possible.

2. The use of the cold douche.

3. A moderate use of fluids towards night, and a total abstinence from tea.

4. The internal use of belladonna in gradually increasing doses, till its specific effects are produced. In referring to the action of this drug, he mentioned one feature about it as regards children, namely, their small susceptibility to its action; and that they bear it very much better than adults.

### Neglect of Vaccination amongst the Irish Poor.

COMPARING the numbers tabulated by the Local Government Board for the last two years, it appears that the number vaccinated of children under nine years of age, and therefore subject to compulsory vaccination, was less in 1873 than in 1872 by 23,343 cases. The Commissioners remark that the authorities responsible for carrying out compulsory vaccination through the dispensary medical officers should regard this as a very lamentable fact, and should be powerfully stimulated by it to use every effort to induce or compel the poor of their districts by persuasion, and the steady enforcement of the penalty imposed by the 8th section of the "Compulsory Vaccination Act," on parents failing to perform so obvious and imperative a duty by their offspring, to have their children protected against small-pox. The inevitable consequence of the apathy from which this state of things arises will be the accumulation year by year of persons always liable to small-pox if exposed to infection, and certain to fall victims to it in great numbers in all recurrences of epidemics of the disease. In the other class of cases, those of persons not liable to compulsory vaccination, the great decrease of vaccinations for the last compared with the previous year has taken place of 120,268 cases—a circumstance, however, of much less consequence than the decrease between the same years among children under nine years old. The large amount of vaccinations of the former class in 1872 was quite exceptional, was entirely the effect of alarm, and consisted in great measure of re-vaccinations. The number of vaccinations of this class had steadily fallen between 1865 and 1870 from 71,982 to 5,163. Next year the number rose, by the effect of commencing alarm, to 40,836, and in 1872 to the unprecedented amount of 139,822 cases, and has now fallen to 19,554 for last year, and it may be anticipated that in the absence of alarm the number will continue to decline in the following years as it did between 1865 and 1870.

### Novel Dressing for Wounds, and for Stopping Bleeding.

M. VIGIER recommends a paste made by mixing two parts of modelling clay with one of glycerine, and so making a paste which will be found convenient as a dressing and preservative at the same time.

### [ Medical Relief Expenditure of the Past Year in Ireland.

ACCORDING to the table published by the Local Government Board there has been an increased expenditure under the head of medicines and medical appliances for 1873 compared with 1872 of £609—an increase not in accordance with the decrease above mentioned in the number of patients treated in 1873. The rent of dispensary buildings has been increased by the small sum of £69, and the salaries of the medical officers and apothecaries have been raised by about the usual average amount—viz., £1,531. Under the 3rd and 6th heads there has been a less expenditure for 1873 than for 1872—viz., £95 less for books, forms, stationery, &c., and

£5,063 less for vaccination expenses, occasioned by the great decline in the demand for vaccination and re-vaccination consequent on the subsidence of the late severe epidemic of small-pox, and the panic attendant upon it.

The average poundage on the Poor-law Valuation in Ireland, now amounting to £13,408,226, to provide for the above-mentioned total expenditure, was 2'49d., which is slightly under that for the year before—viz., 2'55d.

### Urea in Vomited Matter.

THE interesting assertion is made by Dr. Juventin, of Paris, in a recent thesis, that the excretion of urea by the mucous membrane of the stomach is normal, and goes on in an amount proportionate to that contained in the aqueous portion of the blood. The blood in the normal state contains 0.16 centigrammes of urea to the litre, according to Picard's analyses. The quantities of urea contained in the vomited matters he determined by the process of M. Bouchard.

### Diminution of Infant Vaccination in Ireland.

THE Local Government Board call attention in the last report to the diminution of vaccinations of children then under eight years of age in Ulster, Leinster, and Connaught. This year the diminution in question is common to all the provinces. In Ulster the vaccinations of children under nine years of age were fewer in 1873 than 1872 by 3,679 cases, in Munster less by 11,861 cases, in Leinster less by 6,031 cases, and in Connaught less by 1,772 cases, giving a total decrease of 23,343 cases. It is certainly very strange that, while the small-pox panic drove multitudes of adults to the dispensaries to procure protection for themselves, it appears to have had the effect of deterring parents from seeking the same protection for their young children—a contrast not easy of explanation, unless perhaps we may conjecture that mothers were averse to bring their children to the dispensaries, frequented by unusual crowds, from the not altogether groundless apprehension that they would there be exposed to infection of small-pox.

### New Medico-Pharmaceutical Journal.

IT has been formally announced in the last issue of the *Chemists and Druggists' Advocate* that that journal will, from this month, be incorporated with, and published as, the *Medico-Pharmaceutical Abstract and Review*. The object of the *Medico-Pharmaceutical Abstract and Review* is stated to be to bring therapeutics and pharmacy into more intimate and useful relation, and to constitute a recognised medium of intercommunication and practical co-operation between the allied professions.

### Superannuations in the Irish Poor-law Medical Service.

WE learn from the latest Local Government Board Report that eleven medical officers of dispensaries and one workhouse medical officer have been superannuated under the Poor-law Medical Officers' Superannuation Act in the course of the year, all of whom have been awarded two-thirds of their salaries, the highest sum permitted by law.

A VERY melancholy occurrence took place last week in the south of Ireland by which a member of our profession lost his life. Dr. Kenelly, of Limerick, while dancing at a friend's house, at Lisdoonvarna, fell, and received so serious an injury to his head, that he died the same night

THE quarterly returns of the dispensary medical officers of the numbers of cases of scarlatina, small-pox, and fever attended by them in the year ended September, 1873, as published by the Irish Local Government Board, indicate diminution in each of these diseases in this compared with the year before. The cases of scarlatina were fewer in 1873 than in 1872 by 2,579 cases, those of small-pox by 9,381, and those of fever by 1,150. Scarlatina is severely prevalent in Dublin just now.

It appears from the Report of the Irish Local Government Board that additional appointments of midwives have been made during the year in six districts—one in each of four, and two in each of two districts. These most useful appointments have now been sanctioned in 193 dispensary districts. The Board reiterates its great regret that they have not been more generally adopted, as they are persuaded that they are well calculated to prevent much suffering to women in labour, and even, not unfrequently, to save life.

### ON WINES OF PORTUGAL.

WE find it was by no false inspiration that we drew attention in our number of June 3rd to the extraordinary exhibition this year, at Albert Hall, of wines, the produce of Portugal, the most extensive display that has ever been made as yet of produce from a single land. If it has obtained little of the notoriety which might have been expected here, this has happened from causes of an artificial and extrinsic nature, which need not be particularised. The path of commerce is often devious and indirect till straightened by the criterion of a judgment impartial and well-informed. Thus it is that the exhibition of Portuguese wines in London has created less sensation than at the Paris Exposition, undertaken with far inferior means and on a far smaller scale of magnitude—an undertaking which was a considerable source of interest and even of surprise to the French, and which served immensely to stimulate a trade which even before had no mean proportions. At least this exhibition, one might think, would prove of interest to the medical world—the use of wine, and especially port wine, being not smaller in great emergencies than it formerly was, and it is even more relied on now than in the preceding generation.

But this interest has failed to work, if we may judge by our contemporaries of the Medical Press. In one of them, most expansive and knowing about wines—the omission is easily accounted for, so natural is it with those we have wronged to look at them with an unfriendly eye. But what does the *Lancet* say? How deals it with so large a fact? This journal, too, has its commissioner who visits the cellars of the International, and he is not a little scandalised, it seems, to find so many brokers in the Temple; and yet the most lively exception to this rule—the most notable and standard exception, he passes without breath of compliment, indeed, without comment or remark. To Krun, Tartary, to California he bestows a fair measure of space, and accords them the blessing of his praise; to Portugal no single word. Now, Russia is a very extensive country, and so is America too, but scarcely are they the vineyards of the world; but Portugal is that every bit—her vales and hills are one large vineyard; the variety of

her productions is so great—so great her adaptability to wine production, that it has been even proved to demonstration that by merely varying the processes of manufacture there is no wine now drank or known in the market which she could not furnish on demand. At present there lay waste in Portugal some million *hectares* of land, little capable of any other cultivation, but admirably suited to the cultivation of the vine. It is next to nothing, then, that the country has doubled her production; she is fated to form the stock supply to other countries in their commerce, or a sort of backbone to all other feeble growths. The Douro wines she has sent us this year are chiefly of the third, or lowest class *de ramo*, those consumed in the wine-shops of Oporto, some few new wines of a better quality being included. The general idea has been to send such as are least familiar to the British public, and such as will serve to establish an acquaintance with wine of the last year's growth. It is thus that the Portuguese exhibition will be found rather a school of instruction to the passer-by than a bower of idleness and delight. The Epicurean may chance to be mortified, but the analogist will be certainly informed.

The Portuguese are now in the second relay of their exhibition: they exhibit some excellent Madeira and Carcavellos; but these need scarce detain us. The latter wine is not unknown in London, and are on some tables replacing sherry to a certain extent, though somewhat sweeter to the taste. It has received a great shock through the destructive prevalence of the *oidium*, from which it is recovering rapidly. It owes much of its quality, perhaps, to its production on upper cretaceous strata, near the mouth of the Tagus, the neighbourhood of the ocean being tempered by the land breeze, much as happens with the *Medoc* at the *embouchure* of the *Garonne*. This wine gains much by age, like other wines of Portugal! We need scarcely say that it ranks next to Oporto and Madeira, and it is no longer the monopoly of a single mercantile firm. Produced upon the lower cretaceous strata, we may mention next a red wine, which is far less known than it deserves to be, and which seems destined to play a great part in the future of imported wines—this is the Collares, also from the neighbourhood of the ocean, and differing much from that of Estremadura wines in general, even from those of its immediate neighbourhood. This wine has less body, with an agreeable softness; it is aromatic, and slightly acidulous; it has a rather low alcoholic strength, never more than 19° Sykes, and it comes in at one shilling duty. Collares costs one-and-ninety pence a gallon on the spot, and the freight is moderate; it is therefore very inexpensive. This is a wine which is calculated to displace beer, and even claret, in many an English home; compared with the latter it is more nourishing and satisfying; it is far more of a wine than it; nor is it heady, like beer. Though the Portuguese are in the habit of speaking of it as their beer, it is no contemptible wine, especially the better sort. Altogether, we may say of the Collares that it is a convenience we have been slow to adopt, which might serve to lend a grace to English life and remove from it an element of coarseness. It may even sometimes take the place of port; it serves generally to instil gaiety and to promote the flow of conversation. Collares has long served the tables of the Peninsular and Oriental Company, and deserves to be far better known. It is adopted in all families who have any connection with Lisbon, or we might say with Portugal, and we have found it installed in certain London households.

Of the specimens in the exhibition, we find them rather too new—too loaded with sweetness, and too harsh for first acquaintance and appreciation; with only a little age it becomes a charming wine. Beyond this we cannot but remark a fulness and body in these red wines generally much above the ordinary range of organic ingredients. We recommend to taste the Larradio, so much valued by the late King Louis Philippe that he was never without a large supply. Among white wines we recom-

mend the wines of Cartaxo for especial notice; there is no part of the kingdom where more care and attention is given to the wine production. We cannot but mention those of Bairrada, in Beira Baixa, and in the same province those of Castello Branco, among which is the celebrated *Coraad Beira*, which threw such a spell over the Duke of Wellington when he passed through this country that he was never without it abundantly in his cellar. Cuba, in the Alemtejo, also sends a most excellent white wine. And how can we omit to mention the Ribeira da Maria Alfonso? This wine may be rather said to surpass than compete with the Chablis, Grave, and Santerne. For drinking with oysters and suchlike gear, or in sultry weather in the shade, there is no such wine as this. With a little age it develops a delicious perfume, and it is a perfect wonder that it should remain unknown to the English *gourmet* or connoisseur.

### THE IRISH PHARMACY QUESTION.

THE Select Committee to whom the "Apothecaries' Licences Bill" was referred have agreed to the following special report:—

Your Committee having examined witnesses on the general questions raised by the provisions in the Bill submitted to them, have agreed to the following report:—

That a great deficiency is admitted to exist in Ireland of shops for the sale of medicines and compounding of prescriptions, by which serious inconvenience is entailed on the public.

That this deficiency arises from the exclusive privileges enjoyed by the Apothecaries Company, and from the high, and consequently expensive standard of qualification which it has thought it necessary to maintain, in accordance with the view that an apothecary should prescribe as well as dispense medicines.

It was suggested to remedy this deficiency by extending to Ireland the operation of the Pharmaceutical Society of Great Britain as it has been extended to Scotland; but your Committee recommend, in preference, the formation of a separate Pharmaceutical Society for Ireland, especially on the following grounds:—

a. That in Ireland there has been for many years a licensing centre for pharmacy. There was no similar institution in Scotland at the date of the extension of the English Pharmaceutical Society to that country.

b. That a local centre will be more conducive to the scientific and professional development of pharmacy in Ireland, this effect having been found to result in the analogous cases of the medical and surgical schools.

c. That the evidence we have heard leads us to believe that there exist in Ireland ample materials for the creation and maintenance of a Pharmaceutical Society.

Your Committee, feeling how important it is that complete reciprocity should exist between the Pharmaceutical Societies of Great Britain and Ireland, recommend that the examinations and qualifications in each of the three kingdoms be identical; the fees to be paid for examination, licence, and registration, be equal; and that registered licentiates of each kingdom shall have equal rights and privileges in the three kingdoms respectively.

Your Committee further recommend the adoption of a common register for both Societies, and that both be subject to Government supervision.

Your Committee suggest the following as a scheme for creating a Pharmaceutical Society for Ireland, viz., That the Society be formed by naming, in the first place, a certain number of fit and proper persons to be foundation members; with

power to make bye-laws, lay down a scheme of examination, and appoint a Board of Examiners, subject to the approval of the Lord Lieutenant in Council.

That a first Board of Examiners be appointed, with representatives from certain scientific bodies, which have expressed their willingness to co-operate.

Your Committee are of opinion that the new Society should be independent of the control of any existing body.

That after a date to be hereinafter named, no person whose name is not on the register of the Pharmaceutical Society of Great Britain and Ireland (with the exception of the licentiates of the Apothecaries' Hall of Ireland) should be permitted to sell any of the articles scheduled or to be scheduled as poisons under the Sale of Poisons Act, Ireland, 1870; or to compound prescriptions containing any such articles.

That the restrictions and penalties on the sale or compounding of medicines or poisons contained in the Act 33 Geo. III. c. 34, be abolished.

That the interests of existing traders affected by the foregoing resolutions as to the sale of poisons, should be protected.

It has been suggested to your Committee that the introduction into Ireland of men qualified by a shorter and less expensive process to practise as pharmacists would unjustly affect the interests of the licentiate apothecaries, who at present possess the exclusive right of practising, and have obtained it by a longer and more expensive process.

It would appear, however, that the more expensive qualification also confers a more extended power of practice, with which it is not proposed to interfere; and your Committee is of opinion that no such case of hardship would arise as to call for legislative interference.

Your Committee, in conclusion, report that it is not expedient to proceed further with the Bill referred to them; but that, in their opinion, the Executive Government should at the earliest opportunity introduce into Parliament a measure framed in accordance with the resolutions in this report.

### Literature.

#### BIOGRAPHICAL RECOLLECTIONS OF THE MEDICAL PROFESSION. (a)

THE author of "Biographical Recollections of the Medical Profession" has accomplished an arduous task; the task has been performed, too, with much tact, considerable judgment in arrangement, rare ability, and without a single display—within the five hundred and thirty odd pages that constitute the work—of the "gall and worm-wood" of personality.

Forty years of almost daily and uninterrupted intercourse with the persons and the circumstances of which he has written ought to go far to entitle the author to be heard; and, be he of the good old school, or of the modern one, who shall be now so fortunate as to obtain a copy of "Biographical Recollections of the Medical Profession," and commence the perusal of the first chapter, he will find himself so charmed by the truly natural tints thrown into this great picture of remarkable men and "good old times" as to be quite unable to resist pursuing the subject to the end, closing the volume with reluctance. Thus much to the general reader. What shall we say to the surviving medical contemporaries of the Coopers, Wardrop, the Cobbett, Wakley, Key, Ryan, Laurence, Elliotson, J. Johnson, Golding Bird, the Guthries, Todd, Thomson, Abernethy, Liston, Yearsley, Keate, Faraday, Copland, Robert Knox (we thought Robert Knox died at the Cancer Hospital

(a) "Biographical Recollections of the Medical Profession." By John F. Clarke, M.B.C.S., &c. London: J. and A. Churchill, 1874.

Brompton, where he held a small appointment), Walter C. Dendy, Sir H. Holland, Isaac Baker Brown, G. Hamilton Roe, Sigmond, Pennington, Curtis the Specialist, Marshall Hall, Brodie, Antony White—and what a goodly host besides? for all are treated of in this wonderful book? Tradition tells us that once upon a time a certain great man yearned to rest eyes on a world-renowned city, and stated that if the consummation of his wishes were afforded he would be thoroughly satisfied to quit the earth for ever. Bearing in remembrance such a simple illustration of the truly enthusiastic mind, and in words decidedly more philanthropic, we would not say to our old friends "Read these 'Biographical Recollections' and die," but we would say, and in verity, too, "Read them, and you will be very likely to experience some of the pleasing sensations of bright and buoyant youth again."

The style in which "Biographical Recollections of the Medical Profession" has been written is decidedly discursive, vigorous, and comprehensive withal. Opinions on persons and things are stated by the author boldly, impartially, and in a way not to be mistaken—evidently by a gentleman as capable of practically applying the "means to the end" as in theorising on both.

The various hospitals, their governments, powers, peculiarities, and staffs are summarised, and very fine pictures are drawn by the author of many remarkable incidents bearing on them that came under his observation.

No recent work with which we are acquainted, no essay which we have read, no discourse or lecture to which we have listened, seems to us so prolific of sound and good mental lessons for the young practitioner as may be found in this work—what to do and what to avoid, "pitfalls," and how to escape them, failures and successes, are set down, and the moral pointed where necessary, even sometimes to the detriment of the tale's adornment. In proof of what we state under this head, we refer the reader to the unhappy case of Dr. Elliotson and the University College Hospital, that of Curtis, Hale Thomson's case, the Cooper tragedy *versus* the *Lancet*, &c. Regarding Dr. Elliotson, the author thus sums up the case: "What a marvellous career was that of Elliotson. His father was a druggist in the Borough, where he amassed a considerable fortune. He had two sons, John and Thomas, who were sent to the University of Cambridge, where they graduated. John Elliotson was elected Physician to St. Thomas's Hospital at a comparatively early age, and did not seem at first destined to make a prominent figure in the profession. In the years 1827 and 1828 he commenced publishing in the *Lancet* short reports of cases under his treatment in this hospital; to each of these was appended a few clinical remarks, always to the purpose, always terse and epigrammatic. The result was, the unknown physician became in twelve months the talk of the town, and the recipient of £5000 in one year, his income the previous year being only £500. He was chosen to fill the Chair of Medicine at the University of London (as it was then called) and was made Senior Physician to the North London Hospital. He acquitted himself in these appointments admirably, and was one of the most popular teachers that ever existed. In the zenith of his fame, in the prime of life, in full usefulness, he unfortunately took up with mesmerism. Honest himself, he believed all others were equally honest, and hence the result. Elliotson and mesmerism stood and fell together. It is somewhat curious that the journal which in 1828 had laid the foundation of his fame and fortune should just ten years afterwards do so much to effect his ruin; but it was so."

The medical journalism of the time and the establishment of the *Lancet* are set down and given in detail. The "guns," great and small, get a passing word, from the boy George in Mill's office to William Laurence, William Cobbett, and Thomas Wakley, in the little room above it; but can no one inform us who was "Erinensis?" the medical Junius of the period. We are tempted to quote the author's comparison between one with whom for so many years he had been in daily association, the late Dr. Thomas Wakley, proprietor and first

editor of the *Lancet*, and two other celebrities: "Cobbett," says Mr. Clarke, "was unrivalled as a writer of pure English, able and interesting as a lecturer, but was a poor speaker. He was nowhere in debate; his miserable failure in the House of Commons is a matter of history. He who in his 'Register' was the terror of governments and the leader of a large portion of the thinking public was a 'by-word and a jest' before the assembled Commons. He was quite deficient in imagination, and halted, and even broke down in the discussion of subjects with which he was undoubtedly well acquainted. Not so Thomas Wakley. He was equally happy when addressing a low audience as in his place in the House, indeed, I know no one of his contemporaries who was his equal in this respect with the exception of O'Connell; but Wakley was considerably below the 'Liberator' in all respects: O'Connell was a great scholar, had a voice unsurpassed in richness and power, and broke out occasionally into eloquence which has never been surpassed in ancient or modern times."

The societies, the "Medical," "Medico-Botanico," "Medical and Chirurgical," &c., receive their meed of attention, and the position the author occupied at some of their meetings (and at other places) as the official representative of the *Lancet* is related with much humour. Here let us state that, since Mr. J. F. Clarke's work was placed in our hands, we happened to ask a question regarding a "family" portrait suspended in the dining-room of a patient of ours who resides a few miles from town; the answer given by the lady to whom the query was addressed startled us—"Oh, that (she said) is the portrait of 'Uncle Charles,' the doctor." "Charles who?" "Oh! Severn, of course; he practised in London, and had to do with *Bolt Court*." "Bolt Court—the Medical Society—was he a Fellow, eh?" "He held some office in that, I think—look;" and the lady left us, but presently returned heavily laden with a gigantic portfolio—verily a curiosity-shop of Dr. Charles Severn's doings and sayings and cuttings during the time he held the position of Secretary, at Bolt Court, to the Medical Society of London. On turning over a few pages our eyes suddenly dropped on a cutting from the *Medical Times*, October, 1839. The heading is "Meeting of Societies," and the article (for it is a leader) is written on "The London Medical Society at Bolt Court;" the names specially mentioned by the writer of the article are W. C. Dendy, Charles Severn, J. Lord, W. Headland, and J. F. Clarke, the author of the work of which we now write. The circumstance is alluded to in order that the existence of the portrait and portfolio may become known in the proper quarter.

Descriptions, racy and graphic, of the colleges and of medical schools of the period, and the principal celebrities attached to them, are given by Mr. Clarke—the Gerrard Street School, where Dermott (Principal) lectured on anatomy, physiology and surgery; Michl. Ryan on medicine, midwifery, and medical jurisprudence; and John Epps on materia medica, usually numbered 300 pupils. At this school Mr. J. F. Clarke studied. The fee for perpetual attendance was £22, we are informed. There were also the Great Windmill Street (Hunter's, where these very lines were printed) and the Little Windmill Street Schools in this district, and others dotted over the metropolis, and it would appear the "Irish element" led the way as medical school teachers.

An attempt to place before our readers quotations from this work with a view to show its intrinsic merits would be quite out of our power, even did space permit. Its merits are so manifold, and its aims so broad, enlightened, liberal, and important in a medical sense to student, practitioner, and indeed to the profession at large, that by reading the work only will the reader be able to form an estimate of its full value and the great advantage taken by the author of the opportunities afforded him to note the manners and the men he depicts.

In conclusion, we predict for "Autobiographical Recollections" a large and rapid sale, as we have said, it contains



many wholesome truths important to note just now. The work is printed in clear and bold type, on good paper, handsomely bound, issued in the publisher's most effective manner, and is destined to become a welcome guest in very many medical households.

### PRACTICAL PHARMACY. (a)

THE fourth edition of Parrish's well-known work will be welcomed both by the medical and pharmaceutical professions. The talented author has passed away, but his work has been judiciously entrusted to the care of Mr. Thomas S. Wiegand. In the space at our disposal it would be impossible to give anything like a complete analysis of this volume; we may safely say that it contains all the information which might be required by the compounder and dispenser of medicine. The first part of the book treats of the furniture and apparatus requisite in a compounding establishment; pharmaceutical processes are treated of in the second part; inorganic pharmaceutical chemistry follows; then, pharmacy in its relations to organic chemistry is considered; and, lastly, galenical and extemporaneous pharmacy are dealt with.

The work is eminently practical, and has the rare merit of being most readable and interesting, while it preserves a strictly scientific character.

For so extensive a book the inaccuracies are wonderfully few, and as far as we can judge, after a careful study of it, hardly worth mentioning. Aconella is not mentioned as one of the alkaloids of aconite, nor is there any allusion to the process of Fumouze for preparing cantharidin.

There is one feature to which we desire to direct special attention—namely, the Synoptical Tables, which must prove of the utmost value to candidates preparing for examination. The whole work reflects the greatest credit on author, editor, and publishers; it will convey some idea of the liberality which has been bestowed on its production when we mention that there are no less than 280 carefully executed illustrations. In conclusion, we heartily recommend the work, not only to pharmacists, but also to the multitude of medical practitioners who are obliged to compound their own medicines. It will ever hold an honoured place on our own bookshelves.

## Correspondence.

### THE MEDICAL PROFESSION.—SUPPLY AND DEMAND.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—A medical friend of mine, lately home from the East, argued the point with me regarding the nature of an annual payment by families or firms to the medical adviser as being satisfactory. My friend stated that in every family in the East, where he was located, £15 per head was paid him, sick or not sick, per annum, and that he secured £2000 per annum by this arrangement. He asked why it was not so arranged in England. I informed him that in England respectable general practitioners found they would be literally worse than flunkies if they agreed to it. "Why?" said my friend. "I tell you why," said I: "The supply is greater than the demand—hence competition." And I informed my friend that several medical men, driving their carriages (God knows how they do it!), competed for a medical club of the trading class, 400 in number. One obtained the appointment, agreeing to attend whenever required, and supply medicine to the club in a radius of three miles of a certain house of worship for four shillings per head per annum! My friend returned to the East at once.

Yours truly,

A DISGUSTED MEMBER OF THE PROFESSION.

N.B.—I pay my dog-doctor 2s. 6d. a visit to my dogs when sick. Evidently the profession is not going to the dogs!

(a) "A Treatise on Pharmacy: designed as a Text-book for the Student and as a Guide for the Physician and Pharmacist." Philadelphia: Henry C. Lea. London: Baillière, Tindall, and Cox. 4th ed., pp. xxiv. 977. 1874.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

Army Medical Department,  
4th August, 1874.

THE Director-General presents his compliments to the Editor of the MEDICAL PRESS and begs to enclose for insertion a list of candidates of Her Majesty's Service who were successful at the competitive examination in February last, and who passed through a course at the Army Medical School, Netley:—

No. of Marks.	No. of Marks.
1. Ward, L. B. ... 4841	9. Smith, J. A. ... 3435
2. Gallwey, T. J. ... 4615	10. Martin, J. ... 3116
3. Miller, W. B. ... 4290	11. Young, F. S. ... 3105
4. Hickson, G. B. ... 4265	12. Greene, J. J. ... 3105
5. Jagoe, B. R. ... 4085	13. McCreery, N. ... 3062
6. Prendergast, J. ... 4072	14. Gormley, J. A. ... 3039
7. Pratt, W. S. ... 3780	15. Foss, J. E. W. ... 2915
8. Smyth, C. C. H. ... 3568	16. Turner, C. P. ... 2887

### ESTIMATION OF TOTAL NITROGEN IN URINE.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—I have but now seen Dr. Austin's last letter, and quite agree with your editorial append to it. Your correspondent has succeeded in surrounding simple questions with such a haze of misconception that a reply in detail would necessarily be a lengthy one, and I hesitate to occupy your space with any uninteresting matter, more especially since my last letter contains everything really necessary to be said on the subject.

The problem I ventured to draw the attention of the Surgical Society to is in some respects a novel one, the fluctuation in proportion of "residual nitrogen" in health and disease not having been as yet determined with care. This nitrogen usually bears a very small proportion to the nitrogen excreted as urea, hence care was necessary in arranging a plan of estimation which would be accurate and not too difficult of execution. The method I proposed is the result of much experiment, and in its development I have endeavoured to overcome by simple expedients that would be understood by any chemist the difficulties in the way of complete success. Dr. Austin, however, overlooking the fact that I have carefully guarded against objections that might be raised, and failing to appreciate the degree of accuracy required in an investigation of this kind, on the one hand rejects without trial my plan for estimating total nitrogen, and on the other waxes indignant that I should not have recommended for the estimation of pure urea in urine a process which Watt's in his great "Dictionary of Chemistry" states confounds together urea, ammonia, and uric acid, and whose use is also known to be attended with a variable loss of nitrogen, reaching sometimes as high as 8 per cent. Dr. Davy is, I am sure, too good a chemist to regard his process as an accurate one for the estimation of urea alone in urine. Dr. Austin, however, evidently considers an error of ten or fifteen grains in the day's excretion of nitrogen a mere nothing, whereas the quantity I wished to determine rarely reaches fifteen grains per day when the person experimented upon is in health. Need I say more to prove the uselessness of the discussions which now close, so far as I am concerned?

I am, Sir, your obedient servant,

J. EMERSON REYNOLDS.

52 Upper Leeson Street, Dublin, August 6th, 1874.

## Parliamentary Intelligence.

### HOUSE OF COMMONS.

THE OUTBREAK OF TYPHOID FEVER AT KILMAINHAM HOSPITAL.

SIR JOHN GRAY.—Before proceeding to put the question relative to the outbreak of fever at Kilmainham Hospital, of which I have given notice, I desire to make a few observations, but in doing so I shall certainly not detain the House for more than a minute. An outbreak of fever occurred at Newbridge Barracks, about twenty miles distant. The sewage water from that place was allowed to run into the Liffey, which forms the water supply for Kilmainham, being pumped

n for the purpose, and the rumour is that the medical officers have stated it was their opinion that the outbreak of fever arose from the drinking of impure river water, which had come direct from Newbridge Barracks, twenty miles distant. Great excitement necessarily exists on the subject, and therefore I beg to put to the right hon. gentleman the Chief Secretary for Ireland the question of which I have given notice, whether the Local Government Board have received any report from the medical or other officers of the Kilmainham Hospital, Dublin, respecting the recent outbreak of typhoid fever in that institution, and if not, will he, as President of the Board, cause an inquiry to be instituted and a report to be made as to the number of cases of typhoid fever that occurred in the hospital this year; the class of residence in which they occurred; the opinion of the medical officer, Dr. Carte, and of the medical gentlemen who were consulted, as to the immediate cause of the outbreak, and place such report upon the table of this House for the information of the sanitary authorities of the kingdom; and if, having regard to sanitary purposes, hygiene forms a necessary part of the education of medical officers licensed for the Civil Service, the Local Government Board intends to adopt any means of insuring that all medical officers hereafter to be appointed medical officers of dispensaries, and as such sanitary officers of their dispensary districts, shall produce satisfactory evidence of their knowledge of hygiene as a requisite qualification for such appointment.

Sir M. H. BEACH.—In reply to the first question of the hon. gentleman, I may state that Kilmainham Hospital is under the War Department in Ireland, and is not under the Local Government Board in Ireland, which has no official relations with it of any kind, and would therefore have no official knowledge of an outbreak of fever in the hospital. I understand, however, that, as the hon. member has stated, the water supply of the establishment is by no means good, and that there has been an outbreak of fever in the hospital. Since that time arrangements have been made for a better water supply, and works for that purpose are proceeding. With respect to the second question of the hon. member, which relates to an entirely different subject, there is no special hygienic qualification required at present from medical officers in Ireland; but the hon. member is no doubt aware that the legislation of the present session has imposed sanitary duties of an important nature on those officers. At present medical officers appointed to dispensaries must be physicians or surgeons, and I have no doubt that gentlemen holding that position will in future devote more attention to sanitary science, looking at the important duties now imposed on them, than, perhaps, has hitherto been the case.

## Medical News.

### University of London Pass List of First M.B. Examination.

—ENTIRE EXAMINATION—*First division*: Burton, Samuel Herbert; Carrington, Robert Edmund; Keetley Charles Robert Bell; Tirard, Nestor Isidore Charles. *Second division*: Blake, Henry; Fox, Thomas Colcott; Freund, Percy Herbert Edmund; Giles, George Michael James; Godfrey, Charles Walter; Gosling, Charles Edward; Hunt, Joseph William; Joule, John Samuel; Kidd, Walter Aubrey; Pinnell, Thomas Mark; Rossiter, George Frederick; Sankey, Herbert Richard Octavius; Snell, Edward Arthur; Symonds, Charter James; Trafford, John Foster. *EXCLUDING PHYSIOLOGY—First division*: Champneys, Henry Laurence. *Second division*: Baker, Albert De Wiuter; Bigger, Samuel Fergusson; Cross, Francis Richardson; Cuming, Charles Henry; Finch, Alfred; Pickup, William James; Ryley, James. *PHYSIOLOGY ONLY—First division*: Whitelegge, Benjamin Arthur. *Second division*: Batterbury, Richard Legg; Cooke, Edward Marriot; Duke, Herbert; Evans, Charles Walter; Ferrier, John Christian; Harrison, Charles Edward; Landon, Arthur Jermyn; Langley, John Geoffrey; Taunton, William Whitechurch, B.Sc.

**Malvern College.**—On Friday the annual speeches of this school were delivered before a large assemblage, and the Easter and Midsummer prizes were distributed by Mr. G. E. Martin. Among the honours announced by Mr. Faber as having fallen to the school in the preceding year were two open scholarships at Cambridge, one open exhibition at

Oxford, three places (2nd, 16th, and 19th) at the Cooper's Hill College, one Woolwich cadetship, one honourable mention for the gold medal of the Royal Geographical Society, and the first place in the final list of candidates for the East Indian Civil Service. Selections from the following plays were excellently rendered:—Shakspeare's "Merchant of Venice," Plautus's "Mostellaria," Seneca's "Octavia," Molière's "Les Fourberies de Scapin," Aristophanes' "Frogs." The Beauchamp, Gully, and classical prizes were then distributed by Mr. Martin, and the school dispersed till Monday, September 21st.

**The New Sydenham Society.**—The sixteenth annual meeting of the New Sydenham Society will be held in the Assembly Room, Norwich, to-morrow (Thursday, August 13th).

**List of Naval Medical Candidates** who were successful at both the London and Netley examinations, having passed through a course of instruction at the Army Medical School at Netley, and who will receive commissions as surgeons in the Royal Navy, August 1874:

	No. of Marks.		No. of Marks.
Saunders, E. H. ...	4,297	Collins, H. B. ...	3,179
Richardson, H. A. W. ...	3,825	Bennett, W. E. ...	3,150
Collet, J. A. ...	3,460	McKinlay, A. ...	3,032
Luther, E. W. ...	3,437	Hawton, J. W. H. ...	2,910
Bentham, R. ...	3,425	Mulock, E. R. ...	2,800
Ross, N. C. ...	3,394		

### Royal College of Physicians of London—Aug 5.—Admitted Fellows:—

Edward Liveing, M.D. Camb., 52 Queen Anne Street, W.  
Charles Paget Blake, M.D. Edin., Torquay.  
Henry Frederick Augustus Goodridge, M.D. Lond., Bath.  
Henry Gervis, M.D. Lond., 13 St. Thomas Street, S.E.  
Henry Heanes Cruicknell, M.B. Oxon., 58 Welbeck Street, W.  
William Withers Moore, M.D. Edin., Brighton.  
John Charles Thorngood, M.D. Lond., 61 Welbeck Street, W.  
Eustace Smith, M.B. Lond., 5 George Street, Hanover Square, W.  
Robert James Lee, M.B. Camb., 4 Savile Row, W.  
John Buckley Bradbury, M.D. Camb., Cambridge.

**The Peculiar People Again.**—Thomas Hinds, a member of this sect, was lately charged at the Woolwich Police Court with the manslaughter of his child, Joseph Hinds, aged two years, through neglecting to provide it with proper remedies and attendance during its illness. The coroner's jury had returned a verdict of manslaughter against him. The child was ill for three weeks, and frequently in convulsions; but the parents, following the practice of the Peculiar People, sent for one of the elders, named Hurry, who anointed it with oil, and prayed over it. A post-mortem examination showed that death resulted from pleurisy and pericarditis. The prisoner, who said that all he had done was for the glory of God, was committed for trial, bail in £100 being taken for his appearance at the next session of the Central Criminal Court. An opinion was expressed by the Bench that Hurry ought to be called up for judgment.

**The Forty-second Annual Meeting** of the British Medical Association commenced at Norwich on Tuesday, and will continue each day till Friday (August 14th). *President*, Sir William Fergusson, Bart., F.R.S. *President-elect*, Edward Copeman, M.D. An Address in Medicine will be given by J. Russell Reynolds, M.D., F.R.S. An Address in Surgery will be given by W. Cadge, Esq. An Address in Obstetric Medicine will be given by James Matthews Duncan, M.D., F.R.S. Edin., Lecturer on Midwifery and Diseases of Women and Children in the School of Medicine, Edinburgh. The business will be transacted in four sections viz:—Section A, Medicine; Section B, Surgery; Section C, Obstetric Medicine; Section D, Public Medicine. The honorary local secretaries are—Dr. J. B. Pitt, Norwich; H. S. Robinson, Esq., Norwich; Dr. Beverley, Norwich.

## Gleanings.

### Tincture of Iodine.

By P. CARLES.

It is well known that after being kept a certain time tincture of iodine is modified in its properties, and becomes unsuitable for certain uses, such as for injection in cases of hydrocele, tumours, &c. Guibourt was the first to call atten-

tion to the decomposition which this tincture undergoes, and in 1846 he brought it under the notice of the French Academy of Medicine. He rendered this decomposition palpable by mixing with two equal quantities of water an equal weight of each of two tinctures, of which one was recently prepared and the other was some months old. From the first all the iodine was precipitated, the supernatant liquid being scarcely coloured yellow; whilst the second, in consequence of the greater quantity of iodine which remained in solution, preserved a more intense colour. Guibourt attributed this facility of solution to the intervention of hydriodic acid which had been formed at the expense of the alcohol.

In 1850, M. Gopel presented a memoir upon the same question, and attempted especially to determine in what proportion the iodine diminished in the mixture, or in what proportion hydriodic acid was formed. For this purpose tincture of iodine was treated with reduced copper, which removed the free iodine, without touching that which was in combination, in such a manner that it became easy to estimate the latter under the usual form of iodide of silver. This mode of separation, however, could not be considered as very exact, for the cuprous iodide was slightly soluble and was ultimately estimated as hydriodic acid, thus affecting the exactitude of M. Gopel's results. His conclusions, nevertheless, were, that in the course of time hydriodic acid and hydriodic ether are formed in tincture of iodine.

Finally, in 1859, M. Commaille re-examined the same question and arrived at the conclusion that the alteration in tincture of iodine, far from being rapid, is very limited, and may almost be prevented by the employment of black bottles. M. Commaille the free iodine from that which was in combination by the aid of portions of starch paste, which he successively mixed with tincture until there was no further blue colouration; the hydriodic acid in the residuary liquor was then estimated as iodide of silver. This method of separating the iodine also appears to be inexact, for the large proportion of starch would take up also a portion of the hydriodic acid. Moreover, the figures given by these two authors present such a wide divergence that M. Carles has thought it desirable to publish the results of fresh experiments conducted in a different manner.

The following was the method of operating adopted:—The tincture of iodine was diluted with eight times its volume of water, and the mixture filtered in order to remove the greater part of the precipitated iodine. The clear filtrate was agitated with an excess of carbonate of baryta and again filtered. The baryta which had entered into solution in the state of iodide of barium was then estimated as sulphate, which allowed of a calculation being made of the quantity of hydriodic acid, formed at the expense of a given weight of the alcoholic tincture of iodine. In this way the author found that a tincture, after being prepared ten months (from August to May), and exposed in a white flask to diffused light, contained 1·12 part of hydriodic acid (HI) to 100 parts of tincture. M. Gopel had asserted that a portion of this acid exists in the tincture under the form of ether, but M. Carles, like his predecessor, has not been able to isolate it.

The question therefore arose, whether a normal tincture, to which the proportion of acid found had been added, would be susceptible of producing the bad results which are attributed to old and decomposed tincture. Practically, this has not been found to be the case, and M. Carles thinks the defect should rather be attributed to other products of which the nature is not at present known, but which he proposes to further investigate.—*Bull. de la Société de Pharmacie de Bordeaux*, xiv. 169.—*Pharm. Journ.*

### The Semeiologic Value of Permanent Deformities of the Hand.

THE following is a translation by the *Clinic* of a review of this work, edited by M. H. Heillet, and published by G. Masson, at Paris:—

Certain diseases are recognised by the particular, often characteristic, form which they impart to the hand. To unite these characteristics in a special work, to establish in pathology what may be called the *medical hand*, as legal medicine contains a complete and detailed account of the *professional hand*, such was the new and original subject upon which Prof. Charcot discoursed to his audience at the end of his course on pathological anatomy last year.

M. Heillet conceived the happy idea of collecting the words of this master, and possessed the talent of carrying the

work to a good end in the thesis just published, which has elicited the approbation of his reviewers expressed in a very satisfactory note. The author considers the deformities of the hand only in a diagnostic point of view. Thus he eliminates at once the malformations and deformities, consecutive to trauma and surgical affections, a fact which does not prevent some excursions over the domain of external pathology when necessary to clearness and precision.

Thus limited, the subject is still vast, but the 125 pages published prove that the design was fulfilled. In the first chapter, the author treats of progressive muscular atrophy, where we find, besides other deformities of the hand, the *atrophic grasp*, the *hand of the ape*. These deformities are produced by the muscular lesions consecutive to sections of the different nerves of the arm—cubital, median and radial. The deformities ensue upon atrophy of the muscles innervated by the different branches of the injured nerve. The radial deformity recalls that due to saturnine paralysis, *wrist drop*. This section is concluded with a description of the retraction of the *palmar aponeurosis*, and the deformity of tetanus.

In the second chapter are grouped the diseases of the nervous centres, and we find described successively the *leprous hand*, the *sclerodermic hand*, the *hysterical permanently contracted hand*, the *closed hand of old hemiplegics*, the hand called the *indicateur emphatique*, the *hypertrophic hand of cervical pachymeningitis*, and finally, the different deformities incident to *paralysis agitans*.

In the third and last chapter, the author discusses the interesting deformities due to general diseases, *gout*, *chronic progressive muscular rheumatism*, *Herberden's nodosities*, the *osteo-malacic hand*, the *Hippocratic hand*.

In all these cases the deformities of the hand are of great utility in aiding diagnosis; often they suffice alone to establish the nature of the disease; often they are the sole signs of the inception of disease, or, in the words of the author, they are epitomes of its progress.

The work is ornamented with plates, from the hands of a distinguished pupil of the hospitals, M. Richer. They exhibit to a remarkable nicety the deformities described by the author, who has given us, as the result of his labours, a new chapter in semeiology.

### NOTICES TO CORRESPONDENTS.

✂ CORRESPONDENTS requiring a reply in this column are particularly requested to make use of a *distinctive signature or initials*, and avoid the practice of signing themselves "Reader," "Subscriber," "Old Subscriber," &c. Much confusion will be spread by attention to this rule.

DR. WARING CURRAN, Mansfield.—We have received your communication, with enclosure, which will appear in our next number.

ERRATA.—Dr. Campbell Black's lecture "On Bright's Disease" having been accidentally printed in our last impression without the corrected proof, the reader will kindly note the following errata: On page 104, "revealed an exsanguine," add "condition." For "marked destructive features" read "distinctive." A few errors of punctuation also occur.

### BOOKS, PAMPHLETS, AND MEDICAL JOURNALS RECEIVED.

Statistics of Families. By C. Ansell.  
Atmospheric Electricity and Ozone. By M. Beard, M.D.  
A New Method of Treating Malignant Tumours by Electrolysing the Base. By Geo. M. Beard, A.M., M.D.

### VACANCIES.

Parish of Kensington. Non-Resident Dispenser for the Infirmary. Salary, £100 per annum, with dinner on the six days of attendance. Address the Clerk to the Guardians, Marlborough Road, Kensington, W.  
Ealing. Medical Officer of Health. Salary, £75 per annum, under the Health Act. Applications to the Clerk to the Board.  
Liverpool Northern Hospital. House Surgeon. Salary, £100, with board and lodging. Applicants must address the Chairman of Committee.

Macclesfield General Infirmary. Resident Medical Officer. Salary, £120, with board. Address the Secretary at the Infirmary.  
Newport Infirmary, Monmouthshire. Resident Medical Officer. Salary, £100, with board and lodging. Application to the Secretary.  
Sheffield General Infirmary. Assistant House Surgeon. Salary, £85 per annum, with board, &c. Applicants must address the Secretary.  
Hants County Asylum. Junior Assistant Medical Officer. Commencing salary, £80, with board and lodging. Candidates must address Dr. Manley, at the Asylum, Knowle, Fareham.  
Inverness District Asylum. Assistant Medical Officer. Salary, £70, with board and lodgings. Address the Chairman, at the Asylum.  
Norwich Pauper Lunatic Asylum. A Resident Medical Superintendent. A married man preferred. Salary, £150 per annum. Wife to act as Matron, at £30 per annum additional, with board and residence. Address, "The Committee of Visitors."

APPOINTMENTS.

- CLARKE, T. K., M.D., F.R.C.S.E., a Surgeon to the Huddersfield and Upper Agbrigg Infirmary.
- CLARKE, W. J., M.R.C.S.E., Consulting Surgeon to the Huddersfield and Upper Agbrigg Infirmary.
- CLENDENEN, W. E., L.R.C.S.Ed., L.A.H.D., L.S.A.L., Medical Officer of Health to the Urban Sanitary District of the Borough of Stafford.
- CRAIGTON, C., M.B., M.A., Medical Registrar to Charing Cross Hospital.
- CROW, J. W., L.R.Q.C.P.I., L.R.C.S.I., House Surgeon to the Hartlepool Hospital and Dispensary.
- GRANGE, W. D'OLY, M.B., C.M., Resident Medical Officer to the Royal Edinburgh Hospital for Sick Children.
- HARDYMAN, C. E., M.R.C.S.E., Medical Officer to St. George's Hospital.
- HUMBLE, T., M.D., M.R.C.P.L., Professor of Medicine at the University of Durham.
- HUNT, R., M.R.C.S.E., Assistant Resident Medical Officer to the Leeds Public Dispensary.
- JENKINSON, H., L.R.C.P.Ed., M.R.C.S.E., Senior Resident Medical Officer to the Leeds Public Dispensary.
- KEYWORTH, J. W., M.D., M.R.C.S.E., Medical Officer and Public Vaccinator for the Aston Road, or No. 1 District of the Aston Union.
- LLOYD, E. J., M.B., House Surgeon and Secretary to the Denbighshire Infirmary, Denbigh.
- M'GILL, A. F., M.R.C.S.E., a Surgeon to the Leeds Public Dispensary.
- MACGATH, J., M.D., has been recommended for appointment as a Physician to the East London Hospital for Children and Dispensary for Women.
- RONALDSON, T. R., M.B., C.M., a House Surgeon to the Edinburgh Royal Maternity Hospital.
- URQUHART, A. J., M.B., C.M., a House Surgeon to the Edinburgh Royal Maternity Hospital.
- YOUNG, Mr. J. (Public Analyst for the Borough of Leicester and the Counties of Leicester and Rutland), Public Analyst for Northamptonshire.

Marriages.

RUTHERFORD-MORRISON.—On the 28th ult., in the Methodist Church, Ballymote, by the Rev. John Oliver Park, brother-in-law of the bride, Robert Acheson Rutherford, M.D., Manorhamilton, to Lily, second daughter of Mr. Robert Morrison, the Rock, Ballymote.

Deaths.

- ATKINSON.—On the 1st August, Robert Atkinson, L.S.A.L., House Surgeon to the Hull and Sealecoates Dispensary, aged 78.
- DURHAM.—On the 4th August, at Sandford, co. Dublin, Andrew Durham, Esq., M.D., Deputy Inspector-General of Hospitals, late her Majesty's Bombay Army, aged 61.
- FERGUSON.—On the 6th August, at Prospect, Mullingar, Joseph Ferguson, M.D., aged 73.
- HOWATT.—On the 16th July, H. R. Howatt, M.D., of Cumberland Street, Glasgow.
- NORTON.—On the 1st August, at Nantglas, Llanelly, Carmarthenshire, John Howard Norton, M.D., aged 59.
- RIX.—On the 17th June, on board the Royal Mail Steamship *Nile*, off Greytown, Central America, Rich. Avery Rix, M.R.C.S.E., late Medical Officer to the Chontales Consolidated Mining Company, Nicaragua, aged 31.
- SCHLESINGER.—On the 29th July, B. M. M. Schlesinger, M.R.C.S.E., House Surgeon of St. Mary's Hospital, aged 21.
- TRAILL.—On the 21st July, at Stromness, Orkney, William Traill, M.D., aged 43.
- WILSON.—On the 17th June, John Wilson, M.D., Surgeon R.N. (retired list), of Park Crescent, Brighton.

Advertisements.

GENERAL COUNCIL OF MEDICAL EDUCATION AND REGISTRATION OF THE UNITED KINGDOM, 315 Oxford Street, London, W.—The office of the General Medical Council and of the Branch Council for England has been removed from 32 Soho Square, to the above address.

July 9th, 1874.

FRANCIS HAWKINS, M.D., Registrar.

THE CANCER HOSPITAL, LONDON, (Founded 1851). There is a VACANCY at this Hospital for a RESIDENT HOUSE SURGEON and REGISTRAR. Candidates must be unmarried, registered Members of the Royal College of Surgeons of England, and thoroughly conversant with the use of the microscope. The Honorarium 100 guineas per annum, with Board and Residence. Applications with Diplomas and Testimonials to be addressed to the Chairman of the Weekly Board, 167 Piccadilly, W., on or before August, the 27th next.

ROYAL FREE HOSPITAL, GRAY'S INN ROAD. There is a VACANCY for a JUNIOR HOUSE SURGEON to this Hospital. Candidates, who must be possessed of a Medical or Surgical qualification from one of the Examining Boards of the United Kingdom, are requested to send in their Testimonials to the Secretary, on or before WEDNESDAY, 19th AUGUST. The appointment will be made for six months only, but the holder will be eligible for re-election. Board and residence are provided in the Hospital.

JAMES S. BLYTH, Secretary.

OWEN'S COLLEGE (MANCHESTER ROYAL) SCHOOL of MEDICINE.—The WINTER SESSION will commence on the 1st OCTOBER. The Registration of Students will take place in the New School (Coupland Street entrance), on the 1st, 2nd, and 3rd October, from 9 to 11 a.m., and the registration will be continued up to the 14th October.

A composition fee of £48 in one payment, or in two payments of £25 each, which may be paid with an annual tutorial fee of £2 2s., admits to the complete course of study at the School; and a further sum of £42 to the Hospital Practice at the Royal Infirmary.

Prospectuses will be forwarded on application.

J. HOLME NICHOLSON, Registrar.

WESTMINSTER HOSPITAL MEDICAL SCHOOL, Opposite WESTMINSTER ABBEY.—The SESSION 1874-5 will commence on THURSDAY, OCTOBER 1st, with an Introductory Lecture by Dr. POTTER. The Address will be followed by the Distribution of the Prizes, and a Conversation in the Board-room. The new Physiological Laboratory will be completed by October 1st. The Examination for the Entrance Scholarship will be held on the 2nd and 3rd of October.

GEORGE COWELL, Dean.

5th August, 1874.

ST. THOMAS'S HOSPITAL, ALBERT EMBANKMENT, WESTMINSTER BRIDGE, S.E.

The MEDICAL SESSION for 1874 and 1875, will commence on THURSDAY, the 1st OCTOBER, 1874, on which occasion an ADDRESS will be delivered by Mr. MACCORMAC, at Two o'clock.

Gentlemen entering have the option of paying £10 for the first year, a similar sum for the second, £20 for the third, and £10 for each succeeding year; or, by paying £105 at once, of becoming perpetual Students.

Private Classes for Students preparing for Matriculation, and for the Preliminary Scientific Examination of the University of London, or for other Examinations, are conducted by members of the Staff, and embrace instruction in Chemistry, Natural Philosophy, Botany, and Comparative Anatomy. These Classes can be attended without entering at the Hospital.

PRIZES AND APPOINTMENTS FOR THE SESSION.

THE WM. TITE SCHOLARSHIP, founded by the late Sir Wm. TITE, C.B., M.P., F.R.S., the proceeds of £1,000 Consols, tenable for three years.

First Year's Students. WINTER PRIZES—£20, £15, and £10. SUMMER PRIZES—£15, £10, and £5.

Second Year's Students. WINTER PRIZES—£20, £15, and £10. SUMMER PRIZES—£15, £10 and £5. The DRESSERSHIPS, and the CLINICAL and OBSTETRIC CLEARSHIPS.

Third Year's Students. WINTER PRIZES—£20, £15, and £10. Mr. GEORGE VAUGHAN'S CHESELDEN MEDAL. THE TREASURER'S GOLD MEDAL. THE GRAINGER TESTIMONIAL PRIZE. THE TWO HOUSE PHYSICIANSHIPS. THE TWO HOUSE SURGEONIES. THE RESIDENT ACCOUCHERSHIPS. TWO MEDICAL REGISTRARSHIPS, at a Salary of £40 each, are awarded to Third and Fourth year's Students, according to merit.

The SOLLY MEDAL, with a Prize of at least 10 Guineas, will be awarded at the end of the Session, to a Student of the Third, Fourth, Fifth, or Sixth years, for the best Report of Surgical Cases.

MEDICAL OFFICERS.

HONORARY CONSULTING PHYSICIANS.—Dr. Barker and Dr. J. B. Sedon Bennett.

HONORARY CONSULTING SURGEON.—Mr. Frederick Le Gros Clark.

PHYSICIANS.—Dr. Peacock, Dr. Bristowe, Dr. Clayton, Dr. Murchison.

OBSTETRIC PHYSICIAN.—Dr. Barnes.

SURGEONS.—Mr. Simon, Mr. Sydney Jones, Mr. Croft, Mr. MacCormac.

OPHTHALMIC SURGEON.—Mr. Liebreich.

ASSISTANT PHYSICIANS.—Dr. Stone, Dr. Ord, Dr. J. Harley, Dr. Payne.

ASSISTANT OBSTETRIC PHYSICIAN.—Dr. Gervia.

ASSISTANT SURGEONS.—Mr. F. Mason, Mr. H. Arnott, Mr. W. W. Wagstaffe.

DENTAL SURGEON.—Mr. J. W. Elliott.

ASSISTANT DENTAL SURGEON.—Mr. W. G. Ranger.

RESIDENT ASSISTANT PHYSICIAN.—Dr. Turfot.

RESIDENT ASSISTANT SURGEON.—Mr. McKellar.

APOTHECARY.—Mr. R. W. Jones.

MEDICINE.—Dr. Peacock and Dr. Murchison. SURGERY.—Mr. Sydney Jones and Mr. MacCormac. GENERAL PATHOLOGY.—Dr. Bristowe. PHYSIOLOGY AND PRACTICAL PHYSIOLOGY.—Dr. Ord and Dr. John Harley. DESCRIPTIVE ANATOMY.—Mr. Francis Mason, and Mr. W. W. Wagstaffe. ANATOMY IN THE DISSECTING ROOM.—Anatomical Lecturers.—Mr. Rainey and Dr. W. Reid. PRACTICAL AND MANIPULATIVE SURGERY.—Mr. Croft. CHEMISTRY AND PRACTICAL CHEMISTRY.—Dr. A. J. Bernays. MIDWIFERY.—Dr. Barnes. PHYSICS AND NATURAL PHILOSOPHY.—Dr. Stone. MATERIA MEDICA.—Dr. Payne. FORENSIC MEDICINE AND HYGIENE.—Dr. Stone and Dr. Gervia. COMPARATIVE ANATOMY.—Mr. C. Stewart. OPHTHALMIC SURGERY.—Mr. Liebreich. BOTANY.—Mr. A. W. Bennett. DENTAL SURGERY.—Mr. J. W. Elliott. DEMONSTRATIONS MORBID ANATOMY.—Dr. Payne. MORBID ANATOMY AND PRACTICAL PATHOLOGY.—Mr. H. Arnott. MENTAL DISEASE.—Dr. Wm. Rhys Williams.

T. B. PEACOCK, M.D., Dean.

R. G. WHITFIELD, Medical Sec.

Any further information required will be afforded by Mr. WHITFIELD

# The Medical Press & Circular.

"SALUS POPULI SUPREMA LEX."

WEDNESDAY, AUGUST 19, 1874.

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## Original Communications.

### LECTURES ON BRIGHT'S DISEASE,

WITH SPECIAL REFERENCE TO

PATHOLOGY AND TREATMENT,

DELIVERED AT THE ROYAL INFIRMARY OF GLASGOW,

By D. CAMPBELL BLACK, M.D.,

One of the Physicians to the Hospital.

#### LECTURE VI.

(Continued from page 105.)

GENTLEMEN,—In other cases true *tetanic* attacks occur, with opisthotonos and trismus. These cases are rare.

The convulsive form, then, comprises three varieties: the eclamptic, the local convulsive, and the tetanic.

*The Comatose Form.*—This form may either be the termination of the convulsive form, or may be of sudden accession, *sui generis*. It is *incomplete* or *complete*. It is in the last case that it is sudden, and of grave import. The face is pale; there is absolute insensibility. The pupils are sometimes normal, or sometimes dilated and sluggish under the influence of light. The patient is in a deep coma; there is stertorous breathing; and Addison has endeavoured to show that the stertor is differently produced from that existing in true epilepsy and cerebral apoplexy. In the latter he maintains that the stertor is caused in the nose and throat, while in the former it is caused alone by protrusion of the lips.

There is yet another distinctive character. The muscular relaxation and insensibility are general in uræmia, and not confined to one side, as they usually are in apoplexy and epilepsy. Furthermore, the uræmic coma is very insidious in its progress.

*The Mixed Form*, as its name implies, is a combination of the two preceding varieties; sometimes the *convulsive*,

and sometimes the *comatose* form predominates. Among the *rare types* are—1st. Those cases in which delirium constitutes a marked feature. Sometimes the delirium comes on as a complication in the convulsive form; but it may exist alone, and thus specially constitute this variety. At other times it comes on abruptly, or may be preceded by the usual premonitions of uræmia, cephalalgia, impairment of vision, obtuseness of intelligence, slowness of movement, &c. 2ndly. The delirium may be monotonous, distinguished by incessant low muttering. Or, 3rdly. *Maniacal*, in which the patient is in continual dread of being pursued, and appeals for succour. A very rare form still is the form where *dyspnœa* is a notable characteristic. This form, of course, must be distinguished from œdema of the glottis, a complication, as we have seen, not unfrequent in Bright's disease. The latter—that arising from œdema of the glottis—is usually of slow progress, and its intensity varies according to that of the localised *œdemæ* in other parts of the body.

The other form—the true dyspnoic variety of uræmia—comes on suddenly; it rapidly glides into the terminal coma, and causes death often in three or four hours. This condition is further characterised by a marked absence of physical signs of lung disorder corresponding to the difficulty of breathing. Christison has seen tracheotomy practised twice in cases of this kind, no trace of œdema of the glottis being disclosed.

On analysing the symptoms presented by uræmic convulsions, it is a fair and legitimate deduction that the variations presented depend on the particular portions of the cerebro-spinal axis affected. Thus, the eclampsia points to an excitation of the medulla oblongata; the tetaniform convulsions to a like impression on the cervical portion of the spinal marrow; the partial convulsions indicate an impression limited to particular nerves; the intellectual aberration indicates irritation, particularly of the surface of the hemispheres; and in the form where dyspnœa predominates it cannot be doubted that the part of the nervous system affected is the origin of the pneumogastric nerves, in the fourth ventricle; while, in the cases where the dyspnoic symptoms are complicated with sibilant respiration, it is probably the laryngeal nerves

that are paralysed, as aneurism of the aorta produces the same phenomena by pressure on the recurrent laryngeal.

**Diagnosis.**—The diagnosis of acute nephritis offers much less difficulty than that of the chronic form. The sudden occurrence of dropsical effusion into the peritoneum, the pleura, the pericardium, &c., with albuminous urine of high specific gravity, frequently containing blood, and febrile disturbance, are sufficiently characteristic. In the absence of albuminous or bloody urine—a circumstance rare in acute nephritis—the indications may be more equivocal.

The affection with which nephritis is most likely to be confounded is hæmaturia. It is to be distinguished from the latter by the following circumstances:—In hæmaturia fibrinous concretions, or even clots of blood, are usually found in the urine, and usually the renal region of one side is more tender on pressure than the other; the urine is generally voided with pain, and there is an absence of dropsy. Hæmaturia from contusion and renal calculi are not likely to be confounded with the bloody urine of nephritic urine.

In many acute diseases the urine may contain blood; but the history of the case, and the presence of clots and urates, clear up any uncertainty. In exceedingly rare cases, supervening on scarlatina, anasarca may occur without notable changes in the urine.

The *diagnosis of chronic nephritis* is attended with much more difficulty, and for the following reasons: Dropsy may be produced by other causes; the urine may contain albumen in conjunction with affections of the heart, liver, lungs—in short, owing to any condition which interferes with the free circulation of blood through the kidney. But when little or no pain is complained of in the lumbar region, when urine of a *light specific gravity* is passed containing no urates and a considerable amount of albumen, and no disease of any other organ exists which might account for the albuminuria, the diagnosis may be made with certainty. In the albuminuria from static congestion the specific gravity of the urine is almost always normal, the urea of the urine is not diminished, and the presence of albumen in the urine may be said to be capricious, depending, as it does, on the position of the body; thus, it may entirely disappear if the recumbent position be observed. Diabetes is sometimes complicated with the presence of albumen in the urine. It is well known that in the diabetic condition of the blood and the elimination by the kidney of, to it, a morbid product, induces in it structural changes; but the presence of sugar in the urine is a sufficiently distinctive feature to prevent error.

The presence of pus in the urine, in such cases as pyelitis and cystitis, may be mistaken for albuminuria. When the urine contains pus it necessarily contains albumen, which is one of the ingredients of pus. The reaction of liquor potassæ and ammonia on urine containing pus, with the general symptoms, should be sufficient to prevent mistake on this point.

If, after a short interval, cerebral symptoms and vomiting, even without dropsy, take place; if the urine be of a light specific gravity; if there be an absence of indications of disease in any other organ—the existence of chronic nephritis is more likely, than a cerebral affection, as a primary disorder. This would be confirmed by a history of exposure to cold, alcoholic indulgence, and the existence of general dropsy even at a somewhat distant date. If, in addition to all these symptoms, anasarca, or effusion occur, the diagnosis is absolutely certain. The appearance of epithelial cells and casts does not *immediately* bear upon diagnosis, as we have seen that they occur coincidentally with other diseases. But should hypertrophy of the heart, with valvular insufficiency or, disease of the liver, be present, the diagnosis is rendered yet more difficult. In such cases, moreover, the urine is sometimes of lighter specific gravity than it is in health, and it not unfrequently contains albumen. How are we to determine that the renal affection is primary, not secondary? Or may not the albuminuria be dependent on the simultaneous co-

operation of the two causes? As a rule, dropsies dependent on affections of the heart usually begin in the inferior extremities, and disappear during the observance of the horizontal position; dropsies dependent on renal affections generally begin in the face, giving to it a characteristic puffiness which the experienced eye so certainly recognises as not usually to confound it with any other condition. It is rare that the dropsy is so general in cases of simple affection of the heart, as when complicated with cachectic nephritis. In the dropsy due to affection of the liver the urine is usually scanty, of a dark, *bilious* colour, ascites is specially characteristic, and albumen is absent from the urine. In cases in which affection of the liver and kidney are concomitant, while it may be difficult to say to what extent either contributes to the production of dropsy, the affection of the kidney is recognised by the low specific gravity of the urine, and its contained albumen.

Dr. Noel Guéneau de Mussy (*Union Médicale*) remarks that in cases of what he terms “latent albuminuria” albuminuria develops itself silently, and is accompanied neither by anasarca nor by derangements of vision. Often its existence is overlooked until irremediable.

Slight albuminuria may exist for years without causing severe affection of the health. Latent albuminuria, like diabetes, is in many cases an arthritic dyscrasia, and is often preceded by uric gravel. Urates of soda is found in the tubuli, and the secretory cells are atrophied.

Dropsy following intermittent fever is of two kinds: the one depends on pathological changes in the kidney, and the urine is more or less albuminous; in the other the urine does not contain albumen, and no satisfactory reason of its occurrence has been given. It is usually curable by quinine and other febrifuges.

Of the dropsy which occurs in leucocythæmia explanation has already been given.

#### *Tests for Albumen in the Urine.*

1. Whenever the urine contains any substance coagulable by heat and by nitric acid, and *not* precipitable by acetic acid, that material may be affirmed to be albumen, for we know of no other substance which presents these characteristics.

2. The albumen so distinguished may be derived (a) from blood, (b) from pus, (c) from chylous urine.

3. The presence of blood is proved by microscopical examination; but frequently the blood corpuscles do not present their characteristic appearance. If the urine be acid, they retain their appearance for a long time, being only a little jagged at their borders; more frequently they are distended, and of a spherical form. Their colour is lighter than usual, they present a sufficiently well-defined outline, but they do not adhere in the usual manner. If urine containing blood be allowed to stand in a conical glass, the blood deposits, and may be recognised by the naked eye. If the sediment be filtered from the supernatant fluid, the latter is found to contain albumen. But if the microscope should fail to discover the presence of blood, chemical tests must be resorted to. Should the blood corpuscles be dissolved, they give to the urine a reddish-brown colour. If acetic acid be added to such urine, and the whole heated, a reddish-brown coagulum is obtained, which, on drying, becomes almost black. If this coagulum be dried, powdered, and treated with alcohol containing sulphuric acid, the fluid becomes reddish or reddish brown, owing to the presence of hæmatin; and if the mixture be evaporated, an ash is obtained which contains iron, whose presence may be demonstrated by appropriate tests. In testing for hæmatin, Hiller boils the urine, and adds to it concentrated caustic potash. Any albumen which may have been precipitated is thus dissolved, and the fluid becomes of a bottle-green colour, owing to the formation of a ferrous hydrate. Further boiling causes a precipitation of the earthy phosphates, with which precipitate the hæmatin is incorporated, yielding a reddish-brown or blood-red colour. The presence of pus is demonstrated likewise by microscopic examination, and by the addition of either liquor potassæ or ammonia,



which causes the urine to become viscid and jelly-like. Chylous or fatty matter is recognised by the addition of sulphuric ether, whereby the urine is instantly rendered transparent.

4. If the urine be alkaline when it is voided, or neutral and become alkaline, it is not usually precipitable by heat, and the neutralisation of it by an acid does not necessarily impart to it this property.

5. If a drop or two of nitric acid be added to albuminous urine intentionally or accidentally, coagulation by heat is prevented; but the precipitation, with or without heat, is brought about by the further addition of nitric acid.

6. The mere precipitation of urine by heat does not necessarily indicate the presence of albumen, for the precipitate may consist of phosphates; hence, to eliminate this source of fallacy it is necessary, *previous* to boiling, to add nitric acid, which dissolves the phosphates.

7. Phosphoric acid, either in small or large quantity, does not cause opacity of the urine, but it prevents coagulability by heat.

8. Acetic acid does not precipitate albumen either in large or small quantity, and when little is used it *does not* prevent coagulability by heat; but in larger quantity the urine remains perfectly clear even at the point of ebullition. In all these cases, however, the urine is coagulable by nitric acid.

9. Hydrochloric acid in small quantity does not precipitate albuminous urine, but it prevents its coagulability by heat.

10. Sulphuric acid, neither in small nor large quantity, precipitates albumen when the urine is cold. On being boiled it becomes opaque, but less so than if it contained no sulphuric acid.

11. Urine that is highly acid and free from extraneous intermixture is not always coagulable by heat. This, according to Bence Jones, happens when urine contains free hydrochloric or nitric acids in such quantity as to form a compound with the albumen, which is soluble both in cold and boiling water.

12. Nitric acid, added to concentrated urine, may cause a precipitate of nitrate of urea, but the microscopic appearances—even the naked eye appearances—are such as to obviate mistake. Or uric acid and urate of ammonia may be thus formed: The latter is dissolved in an excess of the nitric acid; not so the former—at least, except with a large excess of acid. Here, again, appeal must be made to microscopic characteristics. But the urine may contain these salts in *common with albumen*. Then the presence and proportion of uric acid and urate of ammonia are determined by the addition of acetic acid, which does not precipitate the albumen; and by heating, the urate of ammonia is dissolved and coagulates the albumen.

13. It is alleged that when albumen is in small quantity an excess of nitric acid by its oxidising influence may decompose and dissolve the albumen. This is a statement of questionable accuracy.

14. Nitric acid causes turbidity in urine containing turpentine, copaiba, cubeba, &c., but heat has no such influence.

15. Having guarded against all sources of fallacy, the most accurate test for albumen is the following:—Take a little concentrated nitric acid; into the urine to be tested, and contained in a test tube or champagne glass, let a little of the acid trickle down the side of the vessel. Admixture of the fluids does not instantly take place. The urine floats on the surface; the acid is underneath. Usually at the point of contact an intensely red, violet, or blue ring forms—the reaction of uroxyanthine. Should the colour be green, bile pigment may be present; but if albumen, a circular and well-defined turbidity succeeds, and the flaky material gradually sinks to the bottom. Should the urine be also rich in urates, a turbidity may also be thus formed; but then the albuminous ring is lower than the one due to the urates, and separated from it by a clear ring, and the latter gradually vanishes towards the surface, while the former subsides. The application of heat, however, dispels all doubt,

Other tests, such as alcohol, corrosive sublimate, tannin, alum, and carbolic acid, have been used for the detection of albumen. Alcohol, it is true, causes an opacity of albuminous urine; but it has the same effect on urine containing mucus. Besides, alcohol thus added has a greater affinity for the water than for the salts in the urine, and the latter are thus precipitated.

Tannin not only precipitates albumen, but likewise mucus and other constituents of the urine.

Corrosive sublimate, in like manner, seldom fails to precipitate urine whether it contains albumen or not, being decomposed by the sulphates, phosphates, and the organic matters of the urine.

Alum is likewise, and for similar reasons, untrustworthy for the detection of albumen.

Tidy's test consists of equal parts of carbolic and acetic acids. I am not aware that it possesses any special advantages over the ordinary tests in common use.

Dr. Brown-Séquard (*Archiv. of Scient. and Pract. Med.*), in referring to the fact that, while in certain cases, heat alone will not cause the coagulation of albuminous urine, and that in the *majority* of such cases the reapplication of heat after nitric acid has been added a precipitation of albumen takes place, infers that in such cases there must be a modification of albumen, which, so far from being coagulated by heat, actually is deprived of its coagulability by boiling.

In cases of purpura albumen is sometimes found in the urine; but here, unlike what obtains in chronic nephritis, the proportion of urea and of salts is either natural or greater than in health.

In many other acute diseases albumen may be occasionally found in the urine; for example, in acute rheumatism, peritonitis, and typhoid fever, more especially when the diarrhoea is profuse. The albumen, however, in these cases is far from being so abundant as in chronic nephritis.

When urine contains much mucus and is only slightly albuminous, and this coincides with the existence of pain in the track of the ureters, extending to the kidneys, this may be usually ascribed to acute inflammation of the mucous membrane of the calyces, of the pelvis, or of the ureters (pyelitis), and not to inflammation of the proper substance of the kidney. If the above should be complicated with nephritis, then dropsy is most ordinarily present.

Abscess of any portion of the urinary canal will cause purulent and albuminous urine. The microscope will distinguish pus globules, and alkalies give their characteristic reaction.

Urine containing semen is occasionally rendered opaque by the application of heat and nitric acid, like urine slightly albuminous. The microscope will reveal the presence of seminal animalcules, whose appearance are characteristic.

(To be continued.)

## REMARKS ON THE USE AND ABUSE OF SPIRITS AND FERMENTED DRINKS IN ARMIES DURING WAR.

By Surgeon-General C. A. GORDON, M.D., C.B., &c.

THAT the abuse of spirituous and fermented drinks in the army of Britain, as well as among the population of the country, is an immense evil, is a fact generally acknowledged and deeply deplored by all who take an interest in the well-being of the masses. I but repeat an accepted truism when I state that in their immediate and more distant effects such beverages, when improperly or over-indulged in, produce to a greater extent than any other single cause not only physical injury to the individuals concerned, but much of the crime against society, ruin to the subjects of the vice, inherited disease and

moral degradation to their descendants. All this is readily and most fully granted. To the army surgeon, however, the question presents itself, Is their use in suitable quantities and at proper times necessary or beneficial? Unhappily, the fair discussion of the question in this country is surrounded by difficulties. The subject has become one of party, not only among society, but among periodicals. Unless, upon the one hand, a man declares himself a *total abstainer*—that is, an abstainer from all such drinks, or, on the other, as an advocate of them, in which case he is himself apt to attract the look askance of the *very good*—he has difficulty in obtaining a hearing. Some journals would seem to be in the interest of one party or the other, so that a tolerably fair summary of what has been written on the subject is among the existing desiderata. In armies and nations the most ancient, as in those the most modern, the abuse of strong drinks has ever been a source of evil, for which no effectual remedy has even yet been found. In former times, as at the present day, however, the circumstance of evils arising from the abuse has not altogether obliterated the fact that under particular circumstances they are not only innocuous, but may become valuable means in the preservation and restoration of health. A recent French writer (a) expresses himself thus in regard to alcoholic drinks in the army: "Taken in limited quantities, they affect the economy by producing a general stimulation, for the most part agreeable. In the military *régime* they find their indication, especially in active service, when the exertion demanded exceeds the limits of disposable strength. They are also suitable when it becomes necessary to give a stimulus to the organism to withstand cold and wet." He observes, however, that "the nervous system of natives of the north being little excitable, the use of spirits is thus *perhaps* rendered necessary by them; but with more southern nations, especially the Latin races, whose nervous system is more readily deranged, alcoholic excitation is less necessary. The latter can only make use of them as a temporary spur." "Alcohol is not directly a source of strength; its prolonged use becomes a source of weakness, because the nervous system becomes deranged by successive excitations, then falls into a state of torpor from which it becomes no longer capable of recovering. On the other hand, the local irritation of alcohol upon the mucous membranes of the digestive organs destroys their functions, the sense of hunger becomes blunted, nutrition is impoverished, and the whole organism falls into a state of *marasmus*." M. Morache goes on to describe two forms of alcoholic intoxication—"the acute, or that brutal drunkenness that is known to everybody, and the chronic, which does not always follow from a series of acute fits of intoxication, but becomes gradually established in those who, although rarely guilty of excess, yet consume in some shape or other a greater quantity of alcohol than their system is capable of supporting." If a person in such a state is attacked by illness, or meets with an accident, the powers are ill-prepared to withstand either, so that recovery is retarded, or does not take place. Thus it is that men in the army, strong and vigorous in appearance, succumb to what would otherwise have been a slight morbid cause. As a rule, this author declares that alcoholic drinks, under the form of *eau de vie*, ought not to enter into the daily ration of the soldier, whom it brutalises and kills; but he adds: "Wine, with which (France) is so abundantly endowed, in which alcohol, sugar, and mineral salts are combined by the power of Nature in a manner which the chemist is unable to imitate," may be so allowed.

So great have been the evils that have arisen from the abuse of alcoholic drinks in the French army, that from the time of the elder Larrey downwards constant endeavours have been made by medical officers to encourage the substitution of coffee for these beverages, and there is some reason to believe that their endeavours have been

more successful than those of their brethren in the same direction on this side of the Channel. Without doubt, its universal adoption would be a great boon to all armies, and the great benefits obtained from it under particular circumstances are willingly allowed. It acts as a restorative stimulant after fatigue, is at all times a refreshing beverage, and is extremely valuable as a protective against malaria. The French vaunt its great virtues in preserving the health of the soldier in numerous campaigns, including those in Egypt, Algeria, the Crimea, Italy, and Mexico, and M. Morache speaks with satisfaction of the fact that in Paris the troops are more and more becoming to adopt its use as a substitute for spirits. But that there may be exceptional circumstances on active service in which the use of spirits may be necessary is allowed on all sides; that there are such circumstances is well known by all who are practically acquainted with war. As regards wine, its value as a remedial agent in many diseases is beyond question; that it is a prophylactic against diseases of various kinds is equally allowed, and that in times of great scarcity of food it of itself to a certain degree supplies nutriment is a recognised fact by persons who have themselves been subject to such conditions, as during a severe siege. "For fatigue, rest and food are the proper remedies. Alcohol given alone under such circumstances can only stimulate the already exhausted heart to fresh action." Thus a learned professor (a) expresses himself; but it may be said in reply that to stimulate the heart to fresh action is to stimulate the functions of other organs also, and thus to enable the system to recover from a state of depression that might itself be dangerous or fatal, and in which the ordinary causes of disease are in a peculiar manner apt to affect the individual. Dr. Parkes (b) gives a formula for the administration of wine or spirits to soldiers under certain circumstances, as after a fatiguing march, or when they are obliged to engage an enemy without sufficient rest or food. He advises two ounces of red claret wine with two teaspoonfuls of Liebig's extract in half a pint of water, or, if wine is not available, and it can very seldom be available on service in sufficient quantity on account of its bulk and difficulty of carriage, half an ounce of brandy or rum would be a good substitute. I have never actually tested the fact, but am inclined to think that claret, water, and Liebig's extract would be unpalatable in itself, and well calculated to make a man sick; with rum or brandy the effects would be scarcely less unpleasant, but I question very much if the British soldier could be got to swallow such a mixture. M. Morache (c) observes, in regard to the various extracts of meat that bear the name of the illustrious chemist, that even as soup they are little agreeable to the taste, and insipid; while, in large quantities, they have a salt flavour, and exhale an animal, or even a cadaveric odour. What, then, must these extracts be when mixed with cold water? But, continues M. Morache, not only is the extract of meat itself not nutritious, but taken in large doses it becomes poisonous. Such products, he observes, have not, so to speak, any nutritive value; they may, however, be useful to the economy, by the slight excitation they cause, and the activity they produce in the functions of digestion; but it would be a great error to introduce them into the ration of the soldier in a campaign, seduced by their facility of transport. In a *brochure* recently issued by one of the companies for manufacturing such preparations it is frankly acknowledged that the extract is only nutritive in the sense in which tea or coffee are so, and with all due deference to those who vaunt them, I would myself prefer to prescribe spirits with tea or cold water to giving them mixed with extracts described as insipid, cadaveric, innutritious, and toxic. It is something to note, however, considering the general tenor of opinions expressed, that the propriety of giving stimulants to soldiers under special circumstances is allowed by so high an authority as Dr. Parkes, for with very few ex-

(a) *Traité d'Hygiène Militaire*, par G. Morache, p. 387.

(a) *Journal of the Royal United Service Institution*, No. 76, p. 117.

(b) *Op. cit.*

(c) *Traité d'Hygiène Militaire*, p. 715.

ceptions writers and speakers confuse, or insufficiently distinguish, between the great evils that arise from abuse, and the unquestionable benefits that are obtainable from the use under certain circumstances of stimulating beverages. Because drunkenness and crime follow from excess and abuse of spirits, therefore spirits are to be altogether condemned under all and every circumstance! Here is an example of the manner in which the subject is at the present day discussed: "If there be any point of military hygiene that may now be regarded as settled beyond doubt or cavil it is this, that spirits"—"are hurtful to the marching soldier everywhere I believe, but nowhere more so than in hot climates." True, so far, no doubt; in one respect beyond the truth, in another short of the whole truth. And why this wholesale condemnation? Because, on the occasion of the siege of Delhi, (a) "vast quantities of spirituous liquors fell into our men's hands. Drunkenness became fearfully rife, entailing with it increased sickness as well as relaxation of discipline." "We all know the stake played for at Delhi. It was the empire of India. Mark how alcohol put the issue in peril." Therefore, because such gigantic evils follow upon the unrestrained abuse of a powerful therapeutic agent, its use everywhere and in all circumstances is to be forthwith suppressed!

The fact is, that wines and other strong drinks have everywhere and in all times entered very largely—often far too largely—into the beverages of the soldier, and in all probability will ever do so. Yet, as there are reasons for most things, so there may possibly be for this condition of matters. Let us briefly follow to some extent its history. Among the nations of antiquity wine formed an important item in the daily ration of the soldier. In Greece the land and sea forces lived for the most part upon bread soaked in wine and oil. In the armies of Rome the very excellent plan was followed of issuing to the troops a ration of wine and one of vinegar on alternate days; nor have the marches performed by these troops under great vicissitudes of climate and other conditions been yet exceeded. With regard to our own army, excesses not only in drink, but in other vices, were probably more general in former times than they are in the present; at all events they were looked upon as inseparable from military life, although condemned and deplored quite as much as they are now. There seems, however, to have been this difference between the former manner of treating the subject and the present, that while excess and abuse were condemned, the use of the beverage in moderate quantities was sanctioned, doubtless because certain advantages were observed to follow the practice, and it would be well if now in articles on the subject an equally distinct line were drawn between the evils that arise from beastly indulgence in and the benefits to be obtained from moderate and proper use of these beverages. In 1424, when our Henry the Fifth was advancing upon Troyes, he issued various sanitary regulations for his troops, one of which directed that they should temper their ration of heavy country wine with water. In 1475, when the English army entered Amiens, the troops appear to have been right royally treated: Louis the Eleventh caused tables to be set in the streets, and the soldiers to be entertained. According to the chronicle of the event there was great plenty of wine, and an abundance of servants to wait upon them; and it is further related that on the occasion "not a drop of water did they call for." I turn now to my fellow Highlanders, and note what they were wont to do in "the good old times." In 1528 the Scottish army which assembled at Braemar was decidedly well provided with creature comforts; among supplies laid up in that place for their use we read that there was plenty of good ale, sack, claret, tenter, elegant (Alicante), "with some most potent aqua vitæ," in other words, doubtless the real peat reek—usquebeadh. Between 1558 and 1603 the soldiers of the army of "good" Queen Bess had a daily scale of rations that would make a sanitary reformer of the present day stand utterly aghast; but in addition they enjoyed an

allowance of strong drink that would completely dumfound him. Those who were specially raised to resist the threatened Spanish invasion had, if belonging to the infantry, two quarts of beer and a quart of wine daily, and if to the cavalry a still more liberal allowance. Fortunately, in more respects than one, events did not occur to test the equitation of the brave dragoon of the period. Possibly their allowance was much beyond what was good for them. Doubtless, however, there were reasons, if not hygienic, at all events of policy, why so great a liberality was exercised. The forces of Charles the First had also a stated quantity of spirits as part of their daily ration, and we read that in 1642 they lodged a formal objection against the inferior quality of that issued to them. In 1689 the soldiers of James the Second in Ireland were reduced to great straits, not only in regard to food, but, as we learn, in regard to their allowance of "drink;" even the guests at the royal table had their bread and wine measured out to them, and everybody else in the force "drank detestable beer." At a later period of the seventeenth century, the troops of William of Orange who occupied the fort near Inverness that has since then borne his name, had among other supplies "brandy in somewhat superabundant quantities." Subsequently, from the time the army was placed upon a permanent footing, the soldier had as part of his daily ration an allowance of French wine during the short interval that intervened between that date and the treaty of Lisbon, under which a check was put upon the free importation of light wines.

Sir John Pringle laid considerable stress upon the good effects obtained from the moderate use by the troops of wines and other strong drinks. He makes frequent mention of wine as a preventive of scurvy and malignant fever, both of which diseases prevailed extensively in the army operating in the Low Countries in 1742. To some of the men out of hospital he prescribed Rhenish or French wine, of which, he tells us, (a) some men consumed near a quart per day, and part of that undiluted. As to diet, he further remarked: "It may be observed that hopped beer, wine, and spirituous liquors coming into general use have been a great means of suppressing putrid disease;" and in reference to the improved dietary introduced by him, including these drinks, vegetables, and the use of tea, he continues: "How far all these things may be abused is not now the question." Unfortunately more recent writers seem unable to draw the distinction that Sir John Pringle defined. In 1764 Dr. Donald Monro, an army surgeon of no less reputation, published a valuable work upon "Army Diseases and Military Hospitals." In that work, among other excellent hygienic instructions, we read that troops "should be well supplied with fresh vegetables of different kinds, as well as with beer, cider, or wine." He recommends the use of spirits "in moderation," adding that "in winter, when the weather is very cold or wet, a glass of brandy, or of the spirituous tincture of bark, given to the men as they went on duty, and especially in the night, has been found of great use." In 1791 Dr. John Bell deprecated the extent to which drunkenness prevailed among the troops in the West Indies; he inveighed also against the system of the day, according to which no less than half a pint of rum was issued to each man daily. While quite alive to the evils caused by such a system, he was far from suggesting a system of total abstinence, knowing well that such a system was alike unsuitable and impracticable. He recommended that beer or wine should be issued in lieu of spirits, adding with regard to the latter, that wine "is one of the best preservatives of health, and that it should be distributed to the healthy troops on different occasions." In 1799 Dr. Lemprière made some comments against the extent to which intemperance continued to prevail in those islands, and details the measures he in communication with his commanding officer took to repress it, as well as to advance the physical and moral welfare of the troops under his charge. He tells his readers that "when the funds of the regiment were good the commanding officer would give

(a) *Journal of the Royal United Service Institution, loc. cit.*

(a) "Observations," pp. 274, 284.

an occasional allowance of bottled porter to the men," that "care was taken that the allowance of rum was duly mixed with water, and that the men did not drink the whole of their quota at once before sitting down to dinner." He by no means recommended the withdrawal of all strong drinks; he merely laid down certain rules and instructions in regard to their use; and here I would observe, that although the labours of the older medical officers of the army are comparatively little known at the present time, their own writings testify that they studied the requirements of the troops under their charge quite as much and as carefully as their successors are capable of doing. If, therefore, they recommended the moderate use of fermented or spirituous drinks under particular conditions, we may assume that they had good grounds for that recommendation.

That such recommendation did not extend to all conditions is rendered sufficiently evident by the history of the Indian expedition across Egypt, the climate of which approaches that of Algeria, already alluded to. The force under the medical charge of Sir James M'Grigor was on that occasion debarred from the use of spirits during the hot season, but permitted to have a certain quantity during the cold. (a) Throughout the hot season a ration of Greek wine was daily given to the soldiers. It is to be noted that the summer climate of Egypt was then, as it still is, extremely hot and dry, altogether unlike that of Walcheren, where, a few years afterwards, Sir James and Dr. Borland inculcated the use of spirits as a sanitary precaution against endemic disease. In 1809 these two distinguished medical officers, in conjunction with Dr. Lemprière, drew up a series of rules for the preservation of health, among which we find it recommended that "in the evenings of the nights on which they mount guard an extra allowance of spirits to each man would be essentially beneficial," and that "when relieved the next morning a comfortable warm breakfast of strong coffee should be in readiness." Bearing in mind the fact also that Walcheren was extremely malarious, it is of importance to add the further recommendation that "the diet, especially in the sickly period, should be nutritive, and the broths well spiced with pepper;" also that during the same season "a small portion of unmixed spirits might be usefully allowed early every morning." Whatever may, according to the fashion of the present time, be said in regard to such a plan, it is unreasonable to suppose that the medical officers making the proposal had not well considered the subject, and saw good reason for the measure they recommended. In 1810 yellow fever recurred with great severity in Cadiz. Sir James Fells, who was principal medical officer there at the time, recommended such measures of a sanitary nature as appeared to him most appropriate; among them he suggested that each soldier should have a pint and a half of porter daily, and that those employed on night pickets, or other duty near the marshes should be allowed their ration of spirits. In 1821 Dr. Luscombe published a work on the preservation of health of troops on service from miasmatic diseases. Among the sanitary measures recommended by him were that "they should be well clothed, have liberal animal diet, a moderate allowance of beer, wine, or spirits, regular exercise, and cheerful occupation, but avoiding intemperance and fatigue." In India, so far back as 1831, the local government authorised the issue of light wines to the troops in lieu of spirits, in the hope of checking the fearful extent to which indulgence in more objectionable drinks prevailed among the white troops in that country, this measure having been chiefly due to the representations of Inspector-General Burke, who from 1827 had continued to urge his opinion that the ordinary spirit ration ought to be completely withdrawn. "I am quite willing to believe," so Dr. McLeod wrote in 1836, "that the unfortunate practice of Government issuing the dram had its origin in the best intentions, and from a mistaken idea of its effects on health; but it has long been known that spirits are prejudicial under most circumstances, and

under all unnecessary." (a) Neither of these medical officers, however, recommended "total abstinence;" their knowledge of the soldier and of the world was far too extensive for that: they did recommend, however, that properly regulated canteens should be established at which the men could obtain "wholesome wine and malt liquor." Here, again, drunkenness was one thing, the moderate use of "wholesome" wine and malt liquor another; and Dr. Burke was doubtless right when he wrote that "drunkenness, the besetting sin of the British soldiery, has hitherto resisted every attempt to keep it within bounds, and will most probably continue to do so until the soldier becomes a better-instructed man, until he imbibe some little portion of the improving spirit of the age, and hold a more elevated rank in the scale of moral and intellectual beings." The sentence was originally written in Calcutta, in 1827, but Dr. Burke was far in advance of his time. In 1834 the 13th Foot, then stationed at Cawnpore, was the first to supply coffee, tea, light wines, and groceries in the regimental canteen for the use of the men, the intention being thus to wean them from the vice of drunkenness. Tea or coffee was also given to the men in the early morning. Two years before, an attempt had been made at Meerut to introduce the use of beer in regimental canteens; a similar attempt was also made at Calcutta, and so favourable were the results in both cases, that not only did the vice of drunkenness decrease, but so did the prevalence of serious accidents, apoplexy, and delirium tremens. Good was at the same time effected in another way. The profits obtained in canteens afforded the means of benefiting the wives and children of soldiers. In some regiments temperance societies were constituted, the first year in which we read of their being established in India having been so far back as 1828. The first success attending them was very great, not only in diminishing sickness, mortality, and crime, but in enabling the soldiers to deposit larger sums of money in the regimental savings bank. Unfortunately, however, these excellent establishments did not receive from the Government of India the support they deserved; they for a time languished, and not long afterwards were absolutely forbidden by the Duke of Wellington. But better times were not far distant. Measures long urged by medical officers were reintroduced, and since then the authorities, Indian and Imperial, have shown the greatest willingness to adopt the views which formerly neither seemed to care much about following. What is of importance to note, however, is the fact that although these early "reformers" were fully convinced of the evils that arise from abuse of spirits and fermented drinks, and in reality laid the foundation of all that has more recently been done to wean the soldier from them, not one of them went so far as to recommend the complete deprivation of them.

It is sometimes asserted that during the war in Afghanistan the troops were altogether without spirits or strong drinks of any kind. What are the facts? The 13th Regiment occupied Jellahabad; the men were reduced while there to half their ordinary allowance of food, and completely deprived of the spirit ration to which in India they had been accustomed; they were for the most part severely worked in establishing defences against the enemy, and it is said enjoyed a degree of health previously unknown among them. Here it has been the custom to stop in the narration; but for the benefit of those whom it may concern, I continue it a little further. Dr. Robertson, surgeon of the regiment, turning his previous knowledge to account, extemporised a "still," prepared malt from grain, and thus distilled a kind of whisky, which, according to personal narratives, was highly appreciated by those to whom it was issued. We further learn that when in 1843 that regiment returned to India, the 35th Bengal Native Infantry entertained the men of the corps at dinner, and so careful were the Sepoys to meet all probable requirements of their white brothers

(a) "Public Health," by Dr. Guy, Part II.

(a) *Medical Times and Gazette*, No. 1007, vol. II., 1869.

that they provided a number of dhoolies and bearers to convey to their barracks such of their guests as might indulge too freely in the luxuries placed before them.

Since 1855 the use of beer in regimental canteens has been gradually encouraged, to the almost total exclusion of spirits. It is found in practice, however, that although the use of beer is in many respects less injurious than that of spirits, it is by no means without special evils of its own. When indulged in habitually, even to the extent obtainable in canteens, it stupefies and narcotises, predisposes to apoplexy, and affects injuriously the functions of the liver and kidneys. Under conditions of great fatigue, however, a draught of ale is in India, as elsewhere, not only grateful, but a direct restorative, supplying a want which in the case of very many persons can by no other means be met. Experience in India amply proves that exposure to the sun after free indulgence in beer is extremely dangerous; but that its moderate use after sunset, or after the work of the day is done, is, to those who can partake of it, both grateful and wholesome; in the case of those whose health begins to fail without the presence of any specific disease it is indispensable. Here, again, the distinction is drawn between the proper use and the abuse of the beverage. We must also observe, with regard to the issue of beer in canteens, that whatever may be said on the subject of abstinence, the soldier will, so long as he has the means and the power, indulge to some extent at least in strong drinks, and therefore, policy and sanitary considerations alike indicate the propriety of providing him with wholesome beverages in his own barracks instead of depriving him of the means of all indulgence there, thus driving him to haunts of vice and disease in surrounding villages.

During the operations connected with the Indian mutiny our troops were on occasions not only deprived of all spirits, but of all kinds of intoxicating drinks; they and their officers used only "cold" tea, if such a term is applicable to uncooled drinks in the intensity of the hot season. So far were all from suffering inconvenience, that they doubtless benefited from it, and it was observed that those who died by heat apoplexy during the summer months were those who had been previously habitual drinkers, or who had clandestinely indulged in a debauch previous to a march during the day time. In the rainy and cold seasons, however, there were occasions on which an allowance of spirits or beer was necessary for health, and beneficial. In 1865 a spirit ration was issued to the native Indian troops employed in Bhotan, and according to the testimony of medical officers with the expedition, with good results as regards health. In the expedition to Abyssinia spirits and fermented drinks were absolutely prohibited, the only beverages allowed being tea and coffee, and the results are stated by some of the medical officers who accompanied that expedition. Much of the food obtainable on that occasion is said to have been inferior in quality, and to have been imperfectly prepared. The consequence was that the digestive functions of the soldiers became impaired, derangement of the bowels prevailed to a great extent, the process of assimilation was imperfectly performed; nor did the men recover until on their return journey from Magdala they obtained a ration of spirits. According to some statements, spirits and all other ardent drinks were absolutely denied to the troops during the recent expedition to Ashantee; but what are the facts? It was found necessary, as a preventive against disease, to issue a ration of spirits to the men on the completion of the day's march. The prospect of obtaining it acted as an incentive to the men while on the road; the stimulus afforded by the spirit not only served as a temporary restorative to the system after great fatigue, but thus enabled it to "tide over" in a manner the period during which there was the greatest risk of attack by malarious disease in one or other of the various forms in which it existed. Let any person look over the files of the illustrated papers of that time also, and they will be able to form an idea how far some of the officers practised total abstinence whenever they had an oppor-

tunity of doing otherwise. Champagne was evidently in request on the Gold Coast, as in bygone days; nor can those who know practically what service in that part of Africa really is avoid mentally ejaculating "Small blame to them!" On this subject I would again refer to some of the most recent French writers on army hygiene. M. Bouchardat (a) observes with truth that eau de vie and absinthe are more hurtful than useful, and ought only to be issued exceptionally. Such exceptions are when soldiers are subjected to great fatigue, to enable them to tide over the period of depression from this cause when disease is most liable to make its attack, when food is insufficient in quantity, as during sieges, or imperfect in quality, as on expeditions like those to Abyssinia and Ashantee, where the supplies yielded by the country were inferior in kind. The abuse under such circumstances may increase the evils it is intended to counteract, but the moderate use of spirits or wine in such instances is recommended by hygienists. The same author further adds that in hot dry countries, as Algiers, spirits or eau de vie and absinthe are condemned, light wines being recommended instead, together with coffee for ordinary drink, coffee having also an effect in purifying water of inferior quality. All this is an almost verbatim confirmation of what has been said on the same subject by medical officers of our own army who have seen considerable service under the conditions related. One good suggestion of the French, however, ought not to be lost sight of. They observe that when circumstances demand that spirits shall be issued to the troops, the allowance to each man ought to be given with the coffee and sugar, and taken together.

(To be continued.)

## ADDRESS IN OBSTETRIC MEDICINE.

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### PUERPERAL PYÆMIA, ETC.

NOW-A-DAYS, as compared with even a quarter of a century ago, obstetrics have flourished and grown so rapidly that he who is called upon to give an address such as this cannot but feel embarrassed in the selection of the matters to which he would call attention. If he is not to present his audience with a mere catalogue of details, he must exclude great departments; if he is not to be a mere registrar and exponent of the opinions of others, he must further restrict the scope of his review.

At one time, and that so late as last century or early in this, the whole field of medicine could be with comparative ease occupied by one mind. The same man practised and also taught all its branches, medicine, surgery, and their subdivisions. If one man proposed to do this now we should look upon him as a foolish pretender.

Rarely, and at long intervals in the course of the ages, a powerful mind is produced, such as that of a Newton in physics, who, using the scattered knowledge accumulated by his predecessors, succeeds by his own discoveries and generalisations in restoring simplicity where before there was complexity, and in making for his successors a sort of royal road to the science of his day. But such a master-mind, while on the one hand it simplifies and builds by generalisation, does, on the other hand, increase complexity and number of incoherent details by stimulating progressive inquiry. We hope we shall never again see the return of those dark days when one man could dare to profess or to practise the whole science and art of medicine.

It is by division of labour that we secure growth, and it is vain to regret the feebleness of our powers. As each department of medicine grows, it is, like its parent stem, doomed to subdivision. He, however, who brings the

(a) "Annuaire de Thérapeutique," 1874, page 244.



widest attainments and the most varied talents to bear on his chosen branch, will, *ceteris paribus*, be the greatest in his department. But who is equal to the demands of any department? To tell the truth, there is not among us a single man who has mastered all the details and work of even one single individual topic. One finds the histology of his branch fully occupies his powers; another is similarly placed in regard to its chemistry; a third finds full occupation in its physical relations; a fourth, gleaning behind all these, finds his hands full in trying to be practically useful to his patients.

Partly as a result of the subdivision of labour, greater progress is being made now than at any previous period in the history of medicine; and there is no greater exhilarant and stimulant of enthusiasm than that very progress which is the result of well-judged zeal. In the field there is work for minds of every kind, for talents of every description; for him who truly observes and accurately notes details, for him who arranges or classifies, for him who experiments, for him who suggests and demonstrates conclusions, for him who confirms or overthrows by the process of verification. Every one of us should take some part in this work of advancing medicine, a more important part than that humble and useful one in which all should, in addition, take a share, the attentive listening to and applauding the diligent and the successful.

There can be no doubt as to what is the paramount cause of our more rapid progress in recent times. It is adoption of proper method; it is the modern attempt to found or still further to build up a science of medicine on what is known as the Baconian plan. Imagination and ratiocination are not even now excluded from the operations, but nothing is held as proved by mere reasoning, and when the philosopher strays far from the solid shore of rocky facts he loses his intelligent audience, who have no interest in his occupation of beating the air. The medical man proceeds nearly in the same manner as the physical philosopher. He observes by the naked eye, then by the microscope, and this instrument he aids by numerous experimental plans of hardening, cutting, tinting, and staining. He applies so far as possible physical laws to explain natural and morbid processes. He institutes new experiments to elicit truth. He makes the same appeals to chemical science, and to the practical chemist as he makes to physics and the physicist. He reasons on what he obtains, and tests the truth of his conclusions, verifying by further observations and further crucial experiments.

Everyone who knows the history of midwifery must admit that it is by these methods alone that progress has been made. The greater part of what has been attempted, and the greater part of what is being attempted, is not according to this method; and the labour is vain. The substantial progress, often seen at the time only by a few, and appreciated by a small circle, is achieved by scientific method, and is like the grain of mustard seed which grows and grows till it be a great tree. Obstetricians can justly boast that, in some departments, mere obstetrical knowledge is ripening into a science of obstetrics, a boast which happily some other subdivisional branches of medicine can truly make.

The first subject to which scientific obstetricians, as a matter of course, direct themselves, is natural labour in all its varied aspects; and it is in some parts of this that the greatest advances have been made. The great idea of "mechanism," so loudly proclaimed by Levret, is in process of being worked out. The first stages have been nearly completed by the writings of W. Hunter and Smellie, of Ould, Solayres, Saxtorph, and Nägele. But, now that their inquiries are completed, we are landed in a more difficult and higher stage of this investigation, a stage demanding much more than the good powers of observation and description which sufficed for the former. Standing side by side with contemporary workers at these outposts of science, we are not good critics of the comparative value of their works; but among them we may signalise names familiar to you all—Hecker, Kehr, Schröder, Poppel, Haughton, Schatz, Küneke, Schultze, and many others.

Schröder, Poppel, Haughton, Schatz, Küneke, Schultze, and many others.

The majority of practitioners, however, take far more interest in the management of morbid labour than in any other department of obstetrics; and this for the evident good practical reason that there lie the questions of the highest, immediate, most pressing urgency—there difficult cases and how to manage them—questions which, in the interests of the poor patients and of the anxious practitioners, brook no delay, which cannot wait for the slow decisions of science, however valuable these may be when at last they do come. But, even though science is not at hand to offer the solution of difficulties in practice, it is the duty of every obstetrician, with a view to the advantage of his confiding patients, to watch the progress of science, if not to contribute to it, as well as to select more or less empirically among modes of treatment. He should at once contribute to build up science, and at the same time be ready to meet in the field of practice the great difficulties that come in his way. Like the Jews of old, he should work with one of his hands in the permanent work, while with the other hand he holds a weapon wherewith to fight against Sanballat and Tobiah. He who directs his professional life after this manner will certainly be the best practitioner, the most useful to his immediate patients, and peradventure happily useful indirectly to the patients of all instructed practitioners in all coming time.

There is no department of obstetrics from whose scientific progress more is to be expected by the mere practitioner than that of morbid labour. This is a branch in which a great deal of valuable work has been expended with invaluable results, but much more still is required before we can style our practice rational or scientific. Morbid labour in contraction of the pelvis is a well-known and typical part of this practical department; and to permit brevity as well as to give point to our remarks, let us be supposed as referring to it alone meantime. Now, where is the practitioner to look for guidance in this matter? He can nowhere find a secure resting-place. What views is he to adopt as to mechanism? What treatment is he to pursue? What instruments is he to use? Whom is he to adopt as his guide—Collins, or Simpson, or Dubois, or Hodge, or Barnes, or Hicks, or Spiegelberg, or Schröder, or Leishman? He must act, and to the best of his judgment and ability. To decide among these able and ingenious but discordant advisers he is unable, and there is no hope of his being very soon in a position to do so. However dogmatically the teacher may write on these subjects, he settles nothing for any one but himself and his disciples. The elementary data necessary for arriving at conclusions on these subjects are not yet acquired; but they are being rapidly elaborated. When they are worked out, then there will be a vast diminution in the area over which there is at present mere difference of opinion; and many practical directions will flow from such knowledge which, not then resting on opinion, will command, nay compel, general consent.

To secure this position for the practice in contraction of the pelvis, there must be, first of all, a nearly complete view of the whole mechanism of natural labour, not merely of what is popularly called mechanism in our textbooks, and we know that we are very far off from this complete view. Then pelvimetry must be improved, and even uterine craniometry. Then the modes of progress of labours in contracted pelves of different degrees and kinds, and both when assisted and when unassisted, have to be made out. Then we have to study the explanations of these modes of progress. Then we have to accumulate experience and laboratory experiments of complexity and variety in order to discover what is the best direction of treatment. Then we have by similar means to find the tools best suited for effecting our varied purposes.

In every one of these departments, we are proud to say, most valuable labour is at present being expended, and light is being converged on this great practical matter—delivery in cases of contracted pelvis. Till this light



makes the subject clearer than it is at present, we can have no final adjustment of our differences and difficulties. Mere dogmatic empirical teaching must be allowed to prevail. We must, as people do in matters of politics and religion, choose our authorities and do our duty under them as we best can. It would be tedious to enumerate the names of men who have recently contributed to the progress of this subject; but, at the risk of making omissions which are to be regretted, we may signalise among foreigners Michaelis, Litzmann, Hecker, Kehrer, Dohrn, Spiegelberg, Olshausen, Fehling, Cohnstein, Pajot, Joulin Breisky, Braun, Martin, and Von Haselberg; and among ourselves Radford, Churchill, Simpson, Barnes, Hicks, Playfair, and Kidd.

After natural and morbid parturition come subjects of far more difficult investigation, natural and morbid puerperality. As their secrets are far more deeply hidden, so our progress in bringing them to light has been less and is more recent; yet it is made in a way strictly analogous, if not identical, with that which has conducted us to so much acquaintance with parturition. The steps of natural healthy recovery from childbearing are first investigated; and here much has been attained through the labours of Kölliker, Farre, Priestley, Robin, Friedlander, Turner, and many others. Then, in logical order, we come to morbid puerperality, the subject more immediately interesting to accoucheurs, one of the most important topics, not in obstetrics only, but in the whole of medicine, one which has been discussed with an excessive copiousness, but with very little advantage till recent times. There is in the whole large library of puerperal diseases not a work of considerable value before the early part of this century. We have to come down to the names of Dance and Cruveilhier, and Robert Lee, and Virchow, and Pasteur, and Sanderson, and Lister to find the indistinct bridlepath which is quickly becoming an evident broad and great line of beneficent scientific progress, a progress whose practical results will overflow, not obstetrics merely, but surgery also, and medicine proper. Old books on puerperal diseases are full of disjointed facts and mere discussions. It is only now, when we have resorted to statistics, to anatomy, and to researches by the microscopist and the chemist that our way clears up towards a comparatively full intelligence of the awfully important puerperal diseases. The old works of Puzos, of Willis, and of others are nearly as valuable as most of those of the last generation of authors. But since the times of phlebitis and lymphangitis began, this department has ceased to move in a circle of no progress, and almost every day we are reaping new increments of knowledge, not only valuable in themselves, but indispensable to still further advances.

In connection with this subject there is a preliminary inquiry whose importance is self-evident, and which, remarkable to relate, has only recently been discussed formally, and with sufficient means—the mortality in childbirth, or total mortality of childbirth and in childbed. How many women die from all causes during childbirth and in the puerperal state? Of course, such a question, lying on the surface, has been considered and answered, but the responses have been most insufficient and erroneous. The ordinary belief seems to be that there is, in connection with childbirth and lying-in, no mortality in a well-conducted practice. Miss Nightingale says that deaths from puerperal diseases ought never to arise after delivery in a properly-conducted and managed institution for lying-in women. In a late number of one of our principal medical journals appears a report of one of these properly-conducted and managed institutions. The hospital is a military one, and not a death is reported; and the article is evidently written with a view to show benighted civil obstetricians what is the result of a proper conduct and management. I have often heard sanguine medical men say that in the course of a long and large practice they had not had a single fatal case. Now all such beliefs, reports, and statements are mere incumbrances of the inquiry, and are to be thrown overboard, if not more ungracefully dealt with. We have no time to trifle with such nonsense, for

we are everywhere surrounded by awful deaths in childbirth and in childbed, where there has been, so far as can be discovered by ordinary mortals, nothing but proper conduct and management.

Another response to this great question is familiar to all; it is derived from Merriman, and has often been repeated, not only as evidence of the mortality of childbirth, but also to show the successful progress of obstetrical therapeutics by the rapid diminution of the maternal mortality. It requires such a stretch of credulity to place the slightest confidence in Merriman's tables, that I no longer regard myself as justified in taking up your time any longer with them. More recently, and on much higher, even on official authority, somewhat similar statistics have been proclaimed as evidence of the progress of obstetrical therapeutics from decade to decade; but, alas for us! the evidence will not bear inspection, and we shall not inspect it. Even now, in 1874, we are only striving to reach a sound conclusion as to this mortality; and after all our labour, official and private, have no statistics to be relied on for the comparison of the results of successive decades or of longer periods. The importance of the question needs no demonstration, and it must be solved in a scientific manner. We are seeking not what we fancy or wish, but what is. There can be no doubt that the death-rate does represent marriage and childbearing as a most perilous ordeal for a young woman to encounter; and it is not good reasoning to use this, as a great author has done, to prejudice us against receiving what may be proved. During the whole life, including intra-uterine existence, the female half of mankind has a great advantage over the male in point of mortality, except that for a considerable time childbearing brings her nearly to the level of the male; and that, for a less time, the risks of primiparity sink her below him. Childbearing is in these kingdoms the special, and, so far as known, the only special great cause of enormous increase of female mortality above what it would otherwise be. Primiparity produces a great exaggeration of the childbearing risks. It is this mortality that we seek to estimate, and you observe it is of the highest human interest; but it is for medicine of special importance, being a cardinal element in the solution of the question of the value of hospitals. These noble institutions, the lighthouses of practice, have had their reputations tampered with on the most insufficient grounds. If we are ignorant of what may be called the normal mortality of childbirth and lying-in, how can we justly judge the hospital mortality? If we do not estimate the excess of special, and, in a sense, just causes of mortality in hospitals over those acting in the country generally, how can we fairly measure the salubrity of maternities? It is impossible to do so, yet there has been a lamentable and injurious amount of such mere cavilling with institutions whose reputations should be too sacred for any but the most solemn and logical consideration.

Among the Chinese, puerperal mortality is held, according to Dr. Jamieson, to rise as high as from 1 in 12 to 1 in 20—an alarming and scarcely creditable statement; yet Dr. Thin, lately of Shanghai, believes it to be true. Some statistics of the city of New York, recently published by Fordyce Barker, yield a puerperal mortality of 1 in 35, a terrible result; and on the surely extravagant admission that a quarter or even half of the births were not registered, we have here a very high figure. Faye states the puerperal mortality of Prussia as 1 in 84; and that of Finland, according to Pippingskjöld, as 1 in 106; and that of Norway as 1 in 131. I found that in Edinburgh and Glasgow, in 1855, the mortality of married women within six weeks after delivery was 1 in 107 at least. From a large collection of data, and trying, however rudely, to get an approach to exactness, I estimated the mortality within four weeks after delivery as about 1 in 120.

Hervieux says there are places where for a long series of years this rate has not risen 1 in 1,000; but he must derive his information from some other planet than this, for certainly there is no such abode of the blessed known

among the inhabitants of this earth. Le Fort estimates the rate as 1 in 212; but his figures and reasoning are such as to render this determination unworthy of any reliance, as has been sufficiently demonstrated. Farr has carefully estimated this rate, and arrived at the conclusion that it is 1 in 190. But, however much we may be disposed to bow to his authority, we are bound to scrutinise his method; and, on doing so, it turns out to be very unsatisfactory. He is dealing with a system of registration which is not compulsory; he seeks to verify the returns relied on by appeal to the returners, which is something like trying to correct an error by itself; he made no independent search for the deaths of the delivered women; he made no correction for twins, nor for still-births. On all these accounts I regard his result as being not only out of keeping with the best of the others, but as not especially reliable. The data of foreign countries which I have given may be very good for aught I know, but then I have no positive knowledge of the care or of the circumstances under which they were compiled; yet we have always been led to regard the Swedish and Prussian returns as very valuable.

In this state of matters I was not disposed to allow the point to remain unsettled for this country, and I recently undertook the somewhat onerous task of thoroughly searching the official returns, with a view of getting a figure that could be relied on. The determination which I am about to give can be erroneous only in the way of making the rate too low.

I found that there were registered in Edinburgh and Glasgow, in 1869 and 1870, about 52,000 births, and I found that within twenty-eight days after delivery at least 1 in 139 of the mothers had died. Now, several mothers additional may have died, and their deaths have been elsewhere registered, they having left their original residences. These would slightly increase the rate if they were found; but the rate is too low for another reason—namely, that all births of dead children are omitted. Now this very serious omission of a large proportion of the most dangerous labours leads to this rate of 1 in 139 being far too low. How very far too low, we may to some extent conceive when I call to mind that, among Collins' 16,414 women delivered, 164 died; and of these 164, nearly one-half had dead children! It may be said, then, as the result of this investigation—the most careful and complete, so far as I know—that at least 1 in 139 died; and I add, for the reasons above given, and for others, that I have no doubt that at least 1 in 120 died. These terrible results, gentlemen, or something closely approximating, we must accept meantime, however forcibly they may demonstrate that marriage and childbearing are a fearful ordeal for a young woman to encounter.

My estimate, gentlemen, of this lamentable mortality of lying-in women is 1 in 120 within four weeks; and it is useful to have a fixed period of four weeks for various reasons. But we must not allow ourselves to be misled into thinking that puerperal mortality is over in four weeks. You are well aware that many bad cases linger on beyond the month of four weeks, to die beyond the reach of these restricted statistics; and that many others owe their deaths to puerperality, although the occurrence is later than four weeks after the labour. I have already mentioned that I have most carefully prepared statistics showing a mortality of at least 1 in 107 within six weeks after delivery. Further, I have statistics analysed which do, I believe, show that the mortality of puerperal women does not again fall to its ordinary level till a period not of weeks, but of months, after delivery. It would be a grand work for our young statisticians to show the wave of special mortality, beginning with conception and ending some months after delivery. Statistics have already shown the great rise of mortality, or the great wave of it that passes over the sex during the childbearing age. But we want much more than this, and especially the wave for the average individual pregnancy, labour, and lying-in.

I must conclude this already too long discussion by saying that I believe that in this country nearly 1 in every 100 women delivered at or near the full time dies in parturition, or before the puerperal state and its effects have passed over. This is, no doubt, an awful statement for women and for men. Whether it will deter them from marriage or not when they come to know it I cannot say, for I have no analogy to guide me. The risk from railway accidents is comparatively a mere bagatelle, when taken in any point of view, and I have made no inquiry as to its influence in deterring from travel.

Even the fear that women may be deterred from marriage and childbearing must not deter us from unmasking the real extent of the dangers they encounter; but I must only spend a few words on puerperal morbidity. Besides dying at a rate of nearly 1 in 100, women have to encounter a vast amount of disease and suffering which does not end fatally. This has been called morbidity, in contradistinction to mortality. Miss Nightingale and Dr. Farr, besides having very favourable views of mothers' chances of survival and recovery, go a great deal further than this, and enunciate a doctrine to which it is difficult to believe they have ever given a moment's reflection. They regard ordinary women as having no need of long nursing after lying-in; for it is all over, say they, in a few days after retirement and delivery in the rude compartment of a hut. It is unnecessary to take up the time of any one of the most moderate experience in confinements and diseases of women among the poor or the rich, among the civilised or uncivilised, with a deliberate demonstration of the tragical injustice of their statement. I only refer to it here as it forms a contrast with the truth as to puerperal morbidity. This subject has been illustrated by many authors, among whom are Späth and Landau, who confine their researches to morbidity shortly after delivery. The latter, taking temperature as a criterion, estimates puerperal morbidity as affecting 1 in 6. His valuable experience was in an obstetric hospital, and it requires corroboration. Besides this, he takes no account of the many ulterior diseases coming on after so-called recovery.

Deaths during parturition or the puerperal state are often conveniently arranged in three sets:

1. Childbirth deaths.
2. Puerperal or metria deaths.
3. Accidental deaths.

A woman dying during post-partum hæmorrhage undergoes a childbirth death; a woman dying of puerperal fever undergoes a puerperal or metria death; a woman accidentally poisoned by laudanum shortly after delivery undergoes an accidental death. In cases such as these the placing of the death in its class is easy, but there is a large number of cases regarding which there may be just difference of opinion as to which of these three groups should receive them: hence the classification as used in practice cannot be relied on as embodying a scientifically accurate statement of any point—a circumstance which, for the conduct of various important discussions, is much to be regretted.

But though this is so, there is unanimity in placing puerperal fever deaths in the second category, that of puerperal or metria deaths, and in giving it the horrid pre-eminence over all other causes of mortality in the three combined categories. For obstetricians and for the world, then, this is the subject of first importance in midwifery, and it has attracted a corresponding amount of attention, and never more than at present, and certainly never with so much advantage.

The oldest writer on puerperal fever, Willis, whose book was published two hundred years ago, propounded a theory of this disease which is remarkably like that now in vogue among the best pathologists. He regarded it as having some connection with an uterine wound; but then he did not know the nature nor the anatomy of the uterine wound, and he did not think any of the other wounds or injuries of the lying-in woman important in

the matter. He regarded the disease as a fermentation in the blood, but his notions as to fermentation, its causes and results, were imperfect in themselves, and extremely unlike ours. He attributed to fancied sulphurous particles somewhat of the importance and place that are now given to the bacteria of Mayrhofer, of Lister, and of Heiberg, or to the micrococci or globular bacteria which Orth, and I believe Heiberg also, regard as holding the supremely baneful position among these noxious beings. Our new theories of puerperal fever must be tolerated because, as philosophers, we delight to frame them; and they have a certain utility which this is not the place to discuss. The new theories far surpass the old ones, which deserve more thorough displacement and rejection than the profession has yet awarded them. The new theories are based on an accumulation of facts whose collection is most creditable to modern science. These valuable facts have been the fruit of the ceasing to philosophise, and the struggling to observe and to experiment which are the characteristics of modern pathology. As in parturition, so in the puerperal state, the progress has arisen from discovering mechanism, although we do not speak of these advances in such terms. What are our discoveries in the anatomy of the lymphatics but the mechanism of puerperal fever, or a part of it? What are thrombosis and embolism? What is the conveying and diffusion of bacteria, or of any septic poison? What are our antiseptic precautions? By statistics, by observation, by experiment, we accumulate facts more or less pertinent to the subject, and we arrive at theories having a wider and more solid basis than those of our predecessors, who, long and till recent times, misled by the *ignis fatuus* of an essential puerperal fever, were destined to make little real progress till they threw that notion aside and began working at the matter again according to better method.

No theory of this subject can be regarded as final or sure. But the time has come when obstetricians should try to leave off the use of the convenient term puerperal fever, because it embodies error. There is nothing essentially puerperal known in it; nor is there anything of the nature of a fever, as that term is generally understood. A new name, already widely used, is to be found in the already comparatively old term, *pyæmia*. This new name can be of only temporary utility, but that utility will be very great, and continue till advancing science displaces it by a better, as it should now displace puerperal or childbed fever. It will then have served its time by carrying the ideas of generations of practitioners away from the old, flimsy, and extensively erroneous speculations of the past to the more substantial of this day. It is not to be supposed that *pyæmia* is a term to be analysed into its component parts and held as implying purulent blood. That was once the meaning of *pyæmia*, but it is not so now. The crude pathology of Piorry is already almost forgotten, and his term *pyæmia* is used extensively among the best pathologists as a comprehensive word, identical with or including the septicæmia and ichoræmia of certain others. It sounds like an adoption of humoralist views, but in it there is as much of solidism as of humoralism, and there is in it vastly more of modern science than in the term puerperal fever.

(To be continued.)

### AN UNIQUE CASE IN MIDWIFERY PRACTICE.

By J. WARING CURRAN, F.R.C.S.E., L.K. & Q.C.P.I.,  
Surgeon Mansfield Woodhouse Hospital, Medical Officer Mansfield  
Union, Medical Officer of Health, &c.

THE history of the following case appears to me as interesting as it is unusual:—

One night, about ten months ago, I was summoned to assist a midwife at an obstetric case, some distance from

my residence. Upon arrival I found the patient a *prima para*, aged about seventeen years, and on inquiry learned she had been in labour two days. A vaginal examination at once detected a hand low down, on the perinæum, in fact, with a coil of funis in front, and, strange to say, further examination discovered a foot presenting also. I determined at once to turn, but for the first time in my life, found I was utterly unable to do so, owing to the waters having been eliminated rendering the parts dry, and considerable traction having been made over a lengthened period by the midwife on the arm, as she mistook it for a footling. I summoned to my assistance another surgeon, who, unfortunately, in his efforts to turn, tore away a leg. The case assumed a most serious aspect, when we called in another medical gentleman, that we might perform embryotomy. The result of our combined exertions was that the limbs and body of the child were removed, but the head remained. Our efforts to extricate it were fruitless: the blunt hook was used, and every means that could suggest itself resorted to, but with failure attending; the head lay like a cannon-ball in the interior of the uterus—the patient was young, and the parts contracted. Worn out by our efforts, we arranged on consultation—viewing the case in its worst possible aspect, considering the amount of violence resorted to, the lengthened period the poor girl had suffered, and the fact of the head with a portion of the cervical vertebræ remaining *in utero*—to leave her for a couple of hours. Upon my arrival home, I found another obstetric case had to be attended to, which delayed for some time longer my return to our patient, whom I found in the course of five or six hours considerably restored and with more power in the pulse. On examination I found the head still lay in the uterus, which had contracted on it. I scarcely knew how to act; but I gave the woman a full dose of ergot with belladonna, and in the course of twenty minutes commenced friction over the uterus. I was rewarded by uterine pains, which became satisfactorily and regularly established. I repeated the belladonna, and after some trouble got my finger into the uterus and in the socket of one of the orbits, where I kept it until I extracted the head. The placenta came easily; the girl lay at death's door for a week: but the constant attendance she received at the hands of my professional colleagues, and with the aid of excellent nursing, the woman made a good recovery, and is again, I hear, *en route*. The case in its entirety reveals the difficulty at times obstetric cases present and assume, and the impossibility of following any stereotyped series of rules, as it demonstrates the prudence of waiting patiently, and not rushing at the performance of an operation that was our *dernier ressort*, and which upon a second consultation we should have been compelled to perform with a much less chance of saving our patient's life, however it might have added to our professional repute, for true it is no woman should die undelivered if there be any science in obstetric medicine.

P.S.—The combination may seem strange, but I am always in the habit of either administering belladonna with ergot, or of giving them in alternate doses (when necessary) to the parturient.

The University of Edinburgh.—Professor Spence, in addressing the candidates for degrees on capping-day (Saturday, August 1,) paid a warm tribute to the services of Dr. Hughes Bennett. "Gifted with great talent; as a teacher eloquent, enthusiastic, and energetic, and possessing the power of exciting enthusiasm in others, his great object seemed to be to instruct the students how to observe and to teach themselves. Eminent in his special department—great as a clinical teacher—his former pupils will regard him with gratitude for what he taught, and for the impulses he gave, whilst we, his colleagues, will miss him alike in the senate and in social life. His labours have added lustre to this University, and few names will more deservedly hold a place amongst its worthies than that of John Hughes Bennett." These remarks were received with much applause.

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"SALUS POPULI SUPREMA LEX."

WEDNESDAY, AUGUST 19, 1874.

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**CRIMINAL LUNATICS.**

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FROM the Superintendent's Report of the Broadmoor Criminal Lunatic Asylum, which we have before us, we gather that the daily average number of criminal lunatics resident during the year in the asylum was 508. In 1872 the average number was 503, and in 1871 it was 483. Thus we may calculate on at least 500 such inmates as permanent.

All the inmates of Broadmoor are "criminal lunatics," and they are all, therefore, persons whose freedom has been forfeited by the commission of some offence, but who, instead of being retained in prisons, are sent there for the purpose of being treated in a manner suitable to their insane condition.

We are told that the opinions often expressed as to the value of out-door employment as a remedial agent in the treatment of insane persons have been abundantly confirmed in the working of this asylum, but the adoption of such employment in the open fields, and the resemblance which exists between this asylum and a county asylum in its general plan and construction, are necessarily attended with a certain amount of risk of the occurrence of instances of escape. In the management of this asylum the safe custody of the inmates is a matter which has, however, always been kept prominently in view, and the result may be seen by comparing the rate of instances of escape from this asylum with the rates which have obtained in other institutions.

The great bulk of "criminal lunatics" in England and Wales are now collected in Broadmoor, but there is still a sufficient number of criminal lunatics distributed in various county and other asylums to afford the basis for a comparison; and, although the number detained at Broadmoor has been constantly and steadily increasing, whilst the number in county and other asylums has been commensurately decreasing, the total number treated there during the last ten years does not differ very greatly from the total number treated in all other asylums in England and Wales combined, during a similar period.

A series of carefully compiled statistics show that during the ten years 1863-72 the aggregate of the yearly totals of criminal lunatics under care in the various county and

other asylums in England and Wales, with the exception of Broadmoor, was 5,937, and that the number of instances of escape was 43, giving a percentage of .74 instances of escape upon the aggregate of the yearly totals of numbers treated; and that the aggregate of the yearly totals of criminal lunatics under care in Broadmoor during the ten years and four months, from May 1863 to 29th September 1873, was 5,042, with five instances of escape, giving a percentage of .099, or less than one-seventh of the rate in the other asylums referred to. A calculation based upon a computation of the daily average number resident in the two cases shows a still greater difference, in consequence of the average period of detention of each inmate being longer in Broadmoor than in the other asylums. This does not imply that the greater rate of instances of escape from county asylums is due to any want of care. The primary function of a county asylum is the cure of its inmates, and this object is best attained by a concession of a considerable degree of freedom of action.

The death-rate is markedly less at Broadmoor than in the aggregate of other asylums, and it may be assumed that the bodily health of the inmates has been less infirm than that of the criminal lunatics detained elsewhere, and the much smaller percentage of instances of escape which have occurred may therefore be reasonably accounted for in part by the greater amount of supervision resulting from a larger staff of attendants, and in part by more restricted freedom.

If it be asked whether it is possible to lessen still further the risk of escape whilst preserving the benefits of field employment and exercise to those who most require and who are least inclined to abuse them, we must not forget that under the term "criminal lunatic" two very different classes of persons are comprised.

One class consists of those who, having been charged with the commission of some criminal act, have, either whilst awaiting trial, or when arraigned, or when tried, been found to be insane, and have in consequence been ordered to be detained during her Majesty's pleasure; and the other class consists in those who have been certified to be insane whilst undergoing penal servitude in convict prisons.

These two classes do not include all descriptions of criminal lunatics, but they form the bulk of those who are sent to Broadmoor. The former class consists mainly of persons whose offences have been the direct results of their insane state, and who, up to the time of the outbreak of their insanity, have in many cases led honest and industrious lives. The other class consists chiefly of habitual criminals, whose offences against law and order are part of their everyday life.

As to persons acquitted on the ground of insanity, or found insane before trial, the order of the court under which they are detained is that they shall be kept in strict custody until her Majesty's pleasure shall be known. In the other class a definite sentence of penal servitude has been inflicted.

Persons belonging to the latter class, who recover before the expiration of the term of their sentence, are liable in the ordinary course to be returned to a convict prison to complete the term, so that instead of having the bright prospect of the hope of release to promote recovery, that event becomes scarcely desired, inasmuch as it would be

attended with penal consequences ; and, lest the exercise of self-control and orderly behaviour might, when the more acute stage of insanity has passed, be interpreted as indicating recovery, interest as well as inclination appear to lead towards an opposite line of conduct, and thus disorderly habits are apt to become more strongly confirmed, and for the safe custody of such inmates arrangements similar to those of an ordinaty asylum do not suffice.

Those, however, who are confined during her Majesty's pleasure have no fear of penal servitude before them, should they recover ; on the contrary, when they begin to reflect, they soon perceive that instead of penal consequences being entailed by its being considered that they are again sane, their chief hope of ultimate liberation lies in such an opinion being justified by their good conduct and self-control.

The report states that all the men who effected their escape during the past year were under sentence of penal servitude, and the desire to avoid the possibility of returning to prison was doubtless largely operative as a motive for escaping.

Moreover, we are told that all who have at any time escaped since the opening of the asylum, and who have not been retaken, have been persons under sentences of penal servitude.

Of those under detention during her Majesty's pleasure, who have been at any time admitted since the opening of the asylum, all who have not died, or been legally discharged, are still inmates. Only two men belonging to this class have ever escaped, and both were recaptured within very short periods.

Many of those under detention during her Majesty's pleasure are persons of very violent propensities, who labour under dangerous delusions, and who therefore require very vigilant supervision, but for the efficient management of those who belong to the convict class it is necessary to be provided also with means for controlling criminal habits acquired before the onset of insanity.

The conclusion arrived at by the superintendent from these facts is, that arrangements suitable to one class are not suitable to the other, and that the complete separation of the two classes could not fail to be highly conducive to the efficiency and order of the asylum. We regret to learn that the construction of the asylum is such as to render it doubtful whether it would be possible to accomplish this object satisfactorily without providing entirely separate buildings for the convict class.

The existing buildings would probably afford suitable accommodation for the class detained during her Majesty's pleasure ; although to render the asylum a place of safe custody even for this class, some improvements in the boundary walls of the courts and of the kitchen garden, and some increase in the extent of enclosed ground, are recommended. The infrequency of escape of persons belonging to this class indicates that there is no necessity for greatly restricting the amount of field employment and exercise which have hitherto been accorded with so much advantage in a remedial point of view.

The points to which we have referred are clearly set forth in the report, which is also full of other interesting facts, all of which are ably marshalled in this report for the Council of Supervision.

## THE RELATIONS OF THE PROFESSION TOWARDS HOMŒOPATHS.

FROM a Presidential Address to some Homœopathic Congress, which occupies the leading position in a recent homœopathic periodical, we cull the following statement, which we suppose represents the story upon the faith of which homœopaths maintain their character as martyrs. The lecturer asks :—

“What does this exclusion and professional excommunication of homœopathists mean ? It means that a majority of the profession allege that some of their colleagues who possess the same qualifications as themselves, who have been educated at the same schools and walked the same hospitals, are unworthy to be regarded as members of an honourable profession—are, in short, immoral individuals, with whom it would be ignominy to associate. And why ? Because this excommunicated minority, taught by careful experiment, are convinced that many diseases are best treated by medicines which direct experiment shows are capable of acting on the same parts as are affected by the disease—a rule of practice which the majority only acknowledge in the case of a few diseases, as they have no experience either for or against the validity of the rule beyond these few diseases. The most exalted virtue could scarcely contend that there was aught of immorality in the belief that a great many—instead of only a few—diseases are best treated by medicines that act similarly to the morbid cause ; and yet it is for so believing that we are treated by our colleagues in a so-called liberal profession as though we were guilty of some unpardonable moral delinquency.”

We are obliged to characterise this statement as a gross misrepresentation, indefensible in any speaker who was presumed to be acquainted with the utterances of professional journals on the subject. The medical profession does not refuse to associate with homœopaths for any such reason. but, on the contrary, regards with the most perfect toleration the theory and practice of *similia similibus*. They regard it as unscientific and illusory, but they do not take upon themselves to say that its practice is the result of anything else than a delusion. But they cannot say as much for the practice of infinitesimalism, which, the occasion obliges us to state plainly, they regard as a false pretence, the employment of which disentitles any person to associate with them.

Medical men can imagine that homœopaths may honestly believe in the *similia similibus* theory, but they cannot be expected to conceive that the majority of the fraternity honestly believe in billionths, and they are therefore obliged to conclude either that homœopaths treat disease by effectual therapeutics under the pretence of giving infinitesimals, or that they pretend to treat disease by infinitesimals, well knowing that they are not treating it at all. This is the reason for the exclusion of homœopaths by the profession. It is for the public to say whether an injustice is thereby done to them.

## Notes on Current Topics.

### Practical Physiology.

WE are pleased to find by a paper from the pen of Dr. C. Watson on “Practical Physiology,” in the last number of the *Glasgow Medical Journal*, that the system of teaching histology first proposed by Professor Bennett (who first

taught practical histology in this country), now universally adopted in our metropolitan medical schools, is gradually making its way into *all* the Scotch universities.

It is obvious that such a course is now almost indispensable for a right conception of perhaps the most difficult part of the medical curriculum. It is therefore much to be regretted that such practical courses are not compulsory in Scotland. The number of students attending Dr. Watson's class undeniably shows the general feeling amongst students of the want of opportunities to extend their practical knowledge rather, than to trust to the mere exercise of memory.

Dr. Watson's third course has been conducted on the principles advocated by Professor Rutherford, of King's College, in the *Quarterly Journal of Microscopical Science* for January, 1872, and we doubt if a better could have been adopted. The programme shows that much time and great care has been bestowed on the study of the simple tissues and elements. Nevertheless, the course would have been much more valuable had the histology of organs and compound tissues formed a part.

Carminic acid was generally used to stain the tissues for examination. We would suggest the adoption of hæmatoxylin staining fluid, which possesses many advantages over carmine, not the least being the simplicity of its preparation, its great selective property, the short time acquired for its action on the tissues, and lastly, its inexpensiveness.

### Monobromide of Camphor, $C^{10}H^{15}OBr$ .

DR. BOURNVILLE, of the Paris School of Medicine, strongly advocates the therapeutical employment of this compound in cases of delirium tremens, epilepsy, hysteria, infantile convulsions (due to the irritation of teething), chorea, paralysis agitans, &c. He gives the results of numerous interesting experiments, and also the histories of various cases treated successfully. In hydrophobia, tetanus, and epilepsy, he recommends a solution of the monobromide in alcohol and glycerine to be injected under the skin.

### Social Science Congress.

At the recent meeting of the Social Science Congress the following questions for discussion were selected by the Committee of the Public Health Department :—

1. What are the best methods of sewerage towns and disposing of their organic refuse?
2. In what way can healthy working men's dwellings be erected in lieu of those removed for the purpose of carrying out sanitary or municipal improvements for other purposes?
3. What influence has the employment of mothers in manufactures on infant mortality, and ought any, and what restrictions, to be placed on such employment?

### The Registrar-General's Quarterly Report.

FROM the Registrar-General's Quarterly Report it appears that in the United Kingdom 288,476 births were registered during the three months of April, May, and June, 1874, whilst the total number of deaths registered

during the same period was 167,744, showing the natural increase of population to be 120,732.

The number of marriages during the quarter ending the 31st March, 1874, was 115,348.

Thus, the birth-rate in the United Kingdom in the second quarter of 1874 was 35.7 per 1000, and the death-rate 20.8. The marriage rate in the first quarter was 14.4 per 1000.

The resident population of the United Kingdom in the middle of 1874 is estimated as follows :—

England and Wales	...	...	23,648,609
Scotland	...	...	3,462,916
Ireland	...	...	5,300,485
Total	...	...	32,412,010

### Diapedesis.

A GOOD practical paper, by Mr. J. Needham, of the London Hospital, "On Diapedesis, or the Passage of Blood-corpuscles through the Walls of the Blood-vessels, and How to Observe It," appears in the present number of the *Monthly Microscopical Journal*.

After dwelling on the importance of the subject, a very lucid description is given of the various methods employed for its demonstration. For this purpose he especially recommends the mesentery of the toad and the tail of the tadpole of the frog, or toad; directions are also given for observing it in the mesentery of the guinea-pig, wing of bat, tail of fish, and tongue and foot of frog.

The following method appears so very simple that anyone possessing a microscope with a  $\frac{1}{4}$  in. objective can prove for himself the long disputed fact: "The tail of the tadpole can be arranged with great facility, and affords a very interesting object. The animal is rendered motionless by placing it in a  $\frac{1}{4}$  per cent. solution of curare. It is then placed on an ordinary glass slip, the tail covered with a piece of thin glass, and kept moist by the addition at intervals of a little water."

The second part of the paper is occupied by a minute description of the process; and further on, in the third part, he warns the observer of a number of fallacies that are likely to occur, and gives the various theories held by different observers of the escape of the corpuscles through the unruptured vessels.

The fourth and last part deals with the origin of pus. Whilst admitting its origin to be principally from the amoeboid blood corpuscles, he nevertheless believes that the observations of Steiner and Recklinghausen go directly to prove origin, in part at least, by proliferation of connective tissue corpuscles.

The above brief outline of the paper can convey but a limited idea of the manner in which the subject is treated. We should therefore advise all interested in the subject to procure the paper and study it for themselves.

### Locomotion for Irish Dispensary Doctors.

IN a letter recently addressed by Dr. Kisby, of Lahardane, in the county Mayo, in defending himself against a charge of having omitted to attend a fever case more than five times, he says :—

"I can solemnly declare I was handed the ticket on



Sunday morning, 28th of June, and went without delay. I attended again on 30th June, again on 2nd July, again on 4th July, and again on 7th July, as my Medical Register shall testify; and further, I can show no less than 7 visiting tickets—all of which were in different directions—some very far distant, one of which was to a fresh case of fever. On the other side I give details. On 28th June, I attended Mary Murphy, Derrybick, *which took me over eight hours*. On same day I attended Ellen Fleming, Cloghbrack, and also at Massbrook on 9th July. Ticket to Laragon *took me nine hours to arrive home*. On same day I went to Acalutseen, another direction. Then on 10th July a *new fever case*, which I saw again on 12th; also on 10th I visited at Massbrook mountain, different directions, on another ticket. On 11th to Castlebar with registration returns. On 12th another ticket to Ballyduffy. I think, gentlemen, no fault can rest with me."

This poor gentleman is one of those unhappy medical officers who suffer under the scandalous abuse of the unlimited authority which the law unfortunately confides to guardians and dispensary committee-men. He plainly alleges in his letters to the guardians and the Local Government Board (with what truth we do not take upon ourselves to say) that this persecution is carried on by the brother-in-law of the relieving officer, who is, most improperly as we think, acting as a guardian, because the medical officer has had occasion to report the relieving officer for gross neglect of his sanitary duty.

We do not enter upon the controversy as to the right and wrong of either party, but we reiterate that, supposing Dr. Kisby to be the worst public officer in all Ireland, the system which allows of abuses so gross as those which his letter illustrates urgently requires amendment.

It is a fact that any ill-disposed or unprincipled guardian (of whom most boards and committees possess one or two) could with complete immunity pursue a similar course with the most conscientious and industrious public officer, and thus compel him to resign his appointment.

### Effect of Enlarged Thymus.

In an interesting pamphlet entitled "Observations on a Peculiar and Dangerous Affection of the Respiratory Organs commonly met with in Infants and Children," published by Dr. Finch, of Colchester, we find a record of five interesting cases of disease which the author believes to depend on enlargement of the thymus. In order to give Dr. Finch's views, we will quote one of the cases, selecting the only one of the five in which the autopsy was made. This is it:—

On July 31st I was sent for to see another child of the same family, also a boy, aged three years, of stronger build and not so delicate in appearance as his brother. I had been attending him at intervals for nearly two years, for hoarseness and roughness of breath, with at times great difficulty in respiration. Eighteen months back, at the beginning of 1872, when recovering from scarlet fever, I had seen him in his first attack, when for eight or nine days his breathing was most painful and oppressed; since then he had never breathed quietly, always making some noise; when from any trivial cause he was out of sorts this increased to almost a continual roar. Hitherto perfect quiet in the atmosphere of a warm room, liquid food, and infinitesimal powders of hyd. c. creta had sufficed to bring him round.

When I saw him at the present time his breathing was rather faster than it should be. In expiration the air made a loud rustling sound, inspiration was not so noisy, and had a whistling character; his face was rather anxious and pale, nothing could be seen amiss in the interior of the throat or

mouth, one tonsil was prominent, the other not visible, on both sides of the neck and beneath the chin could be felt glands, the jugular veins were turgid with blood, the sternum projected in its upper part, and the cartilages of first two or three ribs curved inwards, the tongue was clean, and bowels rather costive. The pulse was between 80 and 85, all chest sounds were smothered by the noise of his breathing. He said he did not feel ill, and his father told me that he seemed all right, excepting his loud breathing. I treated him as on former occasions, and when I saw him next evening he was much improved. He continued to mend until August 4th, when he was so much better, that I allowed his going out of the room and returning to ordinary diet. The rough breathing was still audible, like air being forced through a small orifice. In addition to the powders night and morning, he took small doses of iodide of potassium.

The next day I did not see him. I was told he was well enough to walk out with his sister, but objected to the passers by looking at him, in wonder where the noise he made in breathing came from.

Next day, Aug. 7th, he was worse, the difficulty in breathing had increased, he was kept in bed, and because of his restlessness clothes were put upon him, he gasped for breath like one in an asthmatic attack, he was easiest in the prone position with a pillow under the chin. In the evening he was much worse, the difficulty in breathing was intense, merely a narrow stream of air entered the lungs, the face was pinched, the eyes stared, the nostrils worked to and fro with every breath, the lips and nails were blue, and extremities cold, he was perfectly conscious. Mr. Nunn saw him in consultation with me about seven o'clock, p.m. A blister was ordered to be placed across lower part of throat, with chlorate of potash mixture every two hours. I saw him again at 12 o'clock, midnight. The blister could not be kept *in situ*, an emetic produced but slight relief, every few minutes he dozed off, and awoke to fight for breath; gradually he became quieter, though still conscious, and died the next morning between six and seven o'clock, worn out.

Aug. 10th.—Three days later I assisted Mr. Nunn at the examination of the body.

The body was thin for a child; the skin was discoloured and livid in places, particularly on the throat and back. It was well formed with one exception; the sternum was prominent.

On opening the chest, the upper portion of anterior mediastinal space, behind the bone of the sternum, was seen to be occupied by a dark pink mass, extending upwards to near the lower border of cricoid cartilage, and downwards to a level with the second intercostal space, it adhered to under surface of sternum, and was dissected away with difficulty. We agreed it was an enlarged thymus body, its surface was smooth, of uniform pale red colour, and presented a few indentations. It was about half as broad as the palm of my hand, and twice that in length; it was thickest where it had lain just above the sternum, from thence, both upwards and downwards, it got thinner and narrower; on cutting into it a quantity of pinkish fluid escaped, and it became manifestly less in size. It seemed composed for the most part of cells about the size of a hazel-nut, and one or two a little larger. The parenchyma was firm, and as far as we could judge healthy. The heart and large arteries were perfectly sound. The lungs were full of blood, but otherwise in good condition. The lining membrane of both larynx and trachea was injected and darker than natural, and adhering to the lower half was much tough dry mucus.

I had no means of weighing the gland, a piece of sheep's lung cut as near as I could recollect to the size weighed two and a half ounces; from this, allowing for the difference of consistency and the presence of cells and fluid, I concluded the thymus body was something below two ounces in weight.

Dr. Finch believes that paralysis of the dilators of the glottis, from the pressure of the enlarged and distended thymus body impeding the function of the recurrent nerve on one or both sides, is the probable cause of the most important symptoms in this and his other cases. That section or irritation of the inferior laryngeal nerves produces suffocative dyspnoea the numerous experiments of Legallois testify; and Dr. John Reid, in his pathological researches demonstrates that severe dyspnoea, amounting to suffocation, follows irritation or compres-

sion of the inferior laryngeal nerves. There are also numerous cases on record in which an aneurismal sac has caused suffocation by pressure on these nerves.

Sir B. Brodie relates the case of a girl aged seven years troubled with frequent attacks of difficulty of breathing, and who died in one, in whom after death the thymus, enormously enlarged and distended with fluid, was the only lesion present sufficient to account for the symptoms. Dr. Ley, in his monograph on laryngismus stridulus, fully describes and demonstrates the effect of continued pressure on the recurrent nerves.

It has been ascertained that the pressure exerted by an enlarged thymus is capable of flattening the tracheal tube and of causing an approximation of its sides. Dr. Finch thinks this alone, and in the absence of other morbid processes, from the peculiar structure of the trachea, could very rarely seriously impede the respiratory process, but he admits that in extreme cases, when the function of the dilators of the glottis is already interfered with, and the action of the heart weakened, the lungs become slowly engorged, and mucus having had time to accumulate in the bronchi, a slight additional source of exhaustion might easily and suddenly prove fatal.

The sudden and complete arrest of the breathing observed in laryngismus stridulus implies spasmodic action of the laryngeal nerves and muscles, but in Dr. Finch's cases spasmodic action was not present from first to last. To the accumulation of mucus in the larger bronchial tubes, slowly though constantly increasing, the most frequent cause of death, after delayed tracheotomy, combined with the urgent dyspnoea previously existing, and consequent prostration of strength, he attributes the fatal result.

In Dr. Finch's cases the dyspnoea was permanent, the remissions incomplete, and though the difficulty in breathing did not at all times present the same urgency, it was always present. There was long-continued hoarseness possibly from compression or lesion of the superior laryngeal nerve.

This nerve, says the author, besides supplying the laryngeal mucous membrane, also supplies the crico-thyroid muscles; it is the office of these muscles to depress the thyroid cartilage; this depression of the thyroid increases the distance between the points of attachment of the vocal cords, their tightening follows, and the air passing over them causes them to vibrate, and the higher notes of the voice to be produced. If, then, the crico-thyroid muscles do not act, the vocal cords cannot be made tense and the higher notes of the voice are not uttered—it is hoarse, deep, and rough.

This loss of part of the vocal sounds is not uncommon at all ages, and is very frequently met with in children who have enlarged cervical glands, from whatever cause arising.

Dr. Finch remarks that in most cases in which the thymus has been found enlarged, a portion of the enlargement has been owing to the presence of an unnatural quantity of the secretion peculiar to it, and it seems possible that this might gather very quickly from congestion and other causes, and thus afford some explanation of the frequently almost sudden commencement of the difficult breathing. Generally this comes on dur-

ing sleep, and the position of the body and head would have some influence.

### Appropriation of Celebrated Names by Quacks.

AN Act of Parliament has just been printed to render "personation" a felony, and no doubt resulted from the trial of the Tichborne Claimant. It is now enacted that if any person shall falsely and deceitfully personate any person, or the heir, executor, or administrator, wife, widow, next of kin, or relation of any person, with intent fraudulently to obtain any land, estate, chattel, money, valuable security, or property, he shall be guilty of felony, and liable to penal servitude for life, or to not less than five years, or to imprisonment not exceeding two years with or without hard labour, and with or without solitary confinement. It is not our function to say whether the obtaining of money under false pretences which is practised by many of the obscene quacks by making use of the name and credit of celebrated physicians will come within the terms of the clause quoted above. If so, we may perhaps hope to observe a speedy disappearance of the rascals who have been pursuing their calling under the names of Brodie—Ricord—Watson—and other men high in public popularity. It ought to be recognised by the law that "he who filches a good name" steals that which is as hard-earned and valuable a property as any trade mark.

### A Simple Method of Reducing the Dislocation of the Forearm Backwards.

DR. ALEXANDER MURRAY writes to the *New York Medical Record* that he has reduced five cases of the above-mentioned dislocation by the method to be described.

Supposing the dislocated arm to be the left. Dr. Murray takes his position at the outside of the dislocated arm, and places the palm of his right hand to the palm of the patient's left, dove-tailing his fingers between each of the patient's. In this way, a firm hold is secured for extension. He then places his elbow as a fulcrum and for counter-extension on the forearm in front and against the lower end of the humerus, and by a steady pressure downwards and backwards, and at the same time flexing the forearm towards the shoulder, in a few minutes the luxated bones slip into their natural places. Other dislocations of the elbow can be reduced by the same method.

### A Reward for Services to Science.

THE *Wiener Medizinische Presse* says that M. Fourton, the Minister of Education of Paris, has introduced a Bill into the National Assembly, the object of which is to reward the services of the naturalist Pasteur, Fellow of the Academy of Sciences and Professor in the Paris Faculty, by an annuity of 1,200 francs. In support of the Bill it was stated that M. Pasteur had clearly proven that the old axiom that "Life alone produces life," applies to all objects, even those microscopically minute. It was also stated that his researches on silk-worm culture, on wine, vinegar and beer, commanded the highest approbation.

**The Internal Administration of Phosphorus.**

THE difficulty of finding an appropriate vehicle for phosphorus in its medicinal uses has long been recognised. Balsam of tolu has lately been suggested for this purpose. Experiment has shown that four grains of phosphorus are perfectly dissolved by ninety-six grains of washed tolu, if melted together under water and well stirred.

The preparation so made, says the *Philadelphia Reporter*, when examined microscopically, does not show any particles of undissolved phosphorus, and when seen in the dark, and rubbed between the fingers, it gives off a perfectly equally distributed light.

This preparation may, therefore, be formed into pills, with every confidence in the equal distribution and activity of the phosphorus.

**Anæsthetization during Sleep.**

DR. CLUNESS reports in the *Pacific Medical Journal* two cases of successful chloroformization during sleep.

The first case was that of a little girl, aged eight years, in whom, as a sequel to acute otitis media, the mastoid cells of one side became inflamed. Chloroform was administered upon a four-by-six piece of surgeon's lint, held as near the child's mouth as possible during sleep without coming in actual contact. Not the slightest effort was made by the child to avoid the inhalation of the anæsthetic, and in a few moments she was well under its influence.

The second case was on the person of a little girl two and a half years old, for the purpose of having a supernumerary toe removed from each of its feet.

**Persistence of Life after Apparent Death.**

SOME experiments as to how long after cessation of the phenomena of life attempts to revive may be successfully made, have lately been described by M. Böhn in the *Centralblatt*. They were made on cats, after injection of potassium salt into the blood. It was ascertained that after forty minutes' continuation of a state which could in no way be distinguished from death, life may be perfectly restored. Another observation was, that artificial breathing through an opening in the windpipe was not sufficient for restoration; the thorax must also be compressed at the region of the heart. Whether it is the mechanical stimulation thus imparted to the heart, or the slight variations of pressure produced in the arterial system, that is the essential point, is uncertain; but the compression was certainly as essential as the renewal of the air.

**Cholera in Vienna.**

SOME of the Vienna papers state that cases of cholera have recently occurred in that city. The *Wiener Medizinische Wochenschrift*, however, considers that this is an error, arising from the confusion with cholera of the cases of diarrhoea and vomiting occurring in children during hot weather. Since December there has been no case of Asiatic cholera in Vienna, and no instance of its occurrence reported from any of the provinces of the empire.

**British Association for the Advancement of Science.**

THE forty-fourth annual meeting of this Association commences at Belfast this day (Wednesday), and will last for seven or eight days. In Mathematical and Physical Science Professor Jellett will preside; in Chemical Science, Professor A. Crum Browne; in Geology, Professor Hull; and in Biology, Professor Redfern.

THE meeting of the Italian Medical Association will be held this year in Bologna, commencing on September 22nd.

THE Rev. John George Brighton, M.D., has been presented to the vicarage of Dormston, Worcestershire.

MAJOR BATHURST has erected a cottage infirmary at Cirencester, as a memorial to his late wife, and presented it to the town.

THE price of quicksilver has again advanced, and now stands at the enormous figure of £22 per bottle, with fair prospect of still higher quotations.

THE Council of the German Apotheker-Verein extends to British pharmacutists a cordial invitation to attend their session at Munich next month.

THE library of the Royal Medical and Chirurgical Society was closed on Monday, August 10th. It will be reopened on Thursday, September 10th next.

THE magistrates of Buda-Pesth have decided on erecting mortuaries in the churchyards of the city. It will be obligatory on all families inhabiting single apartments to bring the bodies of persons who may die in their rooms to it.

DR. WESTPHAL, who for some time held the office of Director of the Department for Diseases of the Mind and Nervous System in the Charité Hospital, has been appointed ordinary Professor of Psychological Medicine in the University of Berlin.

AT a special meeting of the governors, August 6th, S. Spratly, M.D., was elected surgeon to the Birkenhead Borough Hospital, *vice* H. O. Wilson, Esq., resigned through ill health.

ANOTHER accident on the Alps is reported. Early on Tuesday evening Mr. William Dury, of Youghal, left the hotel at Monte Rosa, and, not returning as soon as was expected, search was made for him. His body was found at the foot of the mountain, in exactly the same spot where Mr. Townsend lost his life two years since.

THE European Congress of Pharmacutists at St. Petersburg was to commence on the 13th inst., and continue until Tuesday. A number of excursions have been organised, and *réunions* for the evenings. The most important question for discussion is the formation of an International Pharmacopœia. The *Chemist and Druggist* announces its intention to publish a report of what may be of interest at this Congress.

THE ceremony of laying the foundation-stone of the New Asylum for the Central London Sick Asylum District, on the site of the Old Strand Union in Cleveland Street, was performed on August 6th by Sir Sydney H. Waterlow, the Chairman of the Central London Sick Asylum District Board.

THE first article in the *American Journal of Obstetrics* for May is by Mary Putnam Jacoby, M.D., being a paper read before the New York County Medical Society on the "Pathogeny of Infantile Paralysis." It occupies forty-four pages, and is pronounced by the *Pacific Medical Journal* to be a thorough and masterly production, reflecting great credit on the scientific acquirements and logical ability of its author. Such labours will tend much more to overcome the hostility to female doctors, than their pertinacious efforts to remove all distinctions of sex in medical education.

AT the Birkenhead Police Court an application was made by the police authorities for an order for the destruction of about 20 tons of American meat which had been seized at the Pacific Company's shed, Morpeth Dock. On Thursday afternoon an inspector visited the sheds, and found there about 250 casks of what purported to be salted meat and tongues, which had been discharged from a steamer. With the assistance of some of the company's men the casks were opened, and about 180 of them, amounting at least to 20 tons of meat and tongues, were found to contain nothing but rotten meat unfit for food either for man or beast. The stench was dreadful, and several of the workmen were ill from the effects of it, and it could be perceived at a distance of 300 yards. The meat was consigned to Messrs. Fair and Co., of Manchester.

BRANDRETH of the Pills has been obliged to make sundry interesting confessions under cross-examination in the Liverpool County Court. It seems he is also owner of the Alcock's Porous Plasters, without which the ailments of old women now-a-days are well-nigh incurable; and he swore that he expended between £1,500 and £2,000 a year in advertising them. Counsel, cross-examining the defendant, asked him whether his manager wrote the different testimonials which professed to come from various parts of the country. The defendant said he did not; whereupon counsel, looking at a sheet of printed testimonials, asked if one signed by John Smith was not written by the manager. The defendant replied that it was a genuine testimonial, and that he had the original, but the manager did not wish his name to appear, and the name of Smith was substituted. It was also stated that these pills are made in enormous quantity at Sing-Sing in America.

THE phenomena of digestion in insects is the subject of an interesting memoir recently communicated to the Belgian Academy by M. Felix Plateau. In a great number of cases (carnivorous insects, Orthoptera), the oesophagus dilates into a crop, terminating in a narrow valvular apparatus just before the intestine. The food, finely divided the mouth, goes into the crop, where it undergoes a

digestive action, aided by certain liquids, neutral and alkaline, and in carnivorous insects, in transformation of the albumenoid matters into something like peptone; in insects that feed on plants, in an abundant production of sugar from fecula. The valvular apparatus, into which the crop then forces the food, is not a triturating organ (its use is not stated). In many insects both it and the crop are wanting, and the food, going directly into the middle intestine, is submitted to a liquid secreted by local glands, which has various chemical effects, according to the species of insect. The author finds also "Malpighian" tubes (for secretion of urine and like matter), in the form of long sacks, or cæcums, connected with the alimentary canal.

WE are obliged to confess that we are heartily ashamed of the figure which our profession cuts in the witness-box, and we earnestly desire that medical men who are called as "swearers" in courts of law would exercise the mental discipline necessary to give an unprejudiced opinion without regard to the interest of those who call them in. We are far from suggesting that the varying opinions given are not honest (although many of the public will undoubtedly hold that view), but we are forced into the conclusion that medical men, when called upon to view a case, may and do view it through spectacles of the colour which their clients desire, and permit a foregone conclusion to interfere with the scientific truth of their evidence. When we see—as we have seen last week—physicians of such high reputation as Mr. Le Gros Clarke and Mr. Savory confronted with Dr. Ramskill and Mr. Hancock, and swearing to an opinion diametrically opposite to these gentlemen, we are not surprised that the public should say that medical opinions can be made to order, or else that medical science is groping in the dark. We do not see why, if a committee of competent physicians had adjudged upon the matter after careful investigation, they need have experienced any difficulty in arriving at the truth. It is obvious that medical evidence is of little use if it only muddles the comprehension of jurors, as it usually does.

A MEETING of public analysts took place last week, and was well attended, Dr. Redwood in the chair. The resolutions passed, when briefly epitomised, amount to the following:—The analysts will take into consideration the report of the Adulteration Committee, and will suggest amendments with a view to the legislation which will take place on the question next session. They object to the proposed reference of disputed cases to the officials of the Somerset House Laboratory in a manner which leaves no doubt of their opinion of that suggestion. The analysts present objected to a compulsory examination at South Kensington or elsewhere; but they suggested that public analysts to be hereafter appointed, if not analysts at the time, and incapable of producing proof of their competency for the post, should be called upon to produce proof of having studied for some time under a competent analyst. The report of the Adulteration Committee was condemned as defective, because it does not state what does and what does not constitute adulteration; and also because it contains a recommendation that, in the case of "mixtures," a

label announcing that fact should be deemed sufficient to the analysts, considering that the percentage of the ingredients should be stated. If faced tea is to be allowed, as recommended by the Committee, the analysts think that the Act ought to specify a distinct limit to the percentage of "facing," and not leave it to them to determine what is "fairly-faced green tea." Several minor resolutions were also agreed to, and the preliminaries of an analysts' association agreed upon.

#### On Subcutaneous Injection of Chloral in Asthma.

By Surg.-Major N. B. BAILLIE, Civil Surgeon, Bhaugulpore.

It does not seem to have occurred to any one hitherto to employ chloral by subcutaneous injection for the relief of spasmodic asthma, and I am therefore desirous of drawing attention to its value when used in that manner for the relief of this distressing affection.

It has been thus employed recently by Sub-Assistant Surgeon Banerjee, as an improvement on a suggestion of my own to him to use the drug in the ordinary mode: the immediate relief afforded is so striking, that I have no doubt when its use in this form is better known it will be eagerly sought for by those who are liable to attacks of the disease.

The following is a case of this sort in which the effect was very strikingly manifested:—

A scantily-clothed woman was carried into the dispensary one cold morning and deposited on the floor, her painful efforts to breathe absorbing all her attention, and rendering her quite unable to give any account of herself; from her friends it was learnt that she had been suffering for some weeks past from more or less difficult breathing which had culminated in the present most severe attack some twenty hours previously. Solution of chloral containing three grains in twenty minims of water, was at once injected subcutaneously at the back of the neck with so much advantage that, ten minutes later, the spasm had entirely ceased, and easy natural respiration had taken its place; the woman expressed her sense of the relief afforded her, and half an hour afterwards walked off to her house with her friends; she was seen again a few days later, having remained quite free from the affection, and as she has not been heard of since, it is probable that the attack has not recurred.

Several other cases of less severity than this have been also treated with equal benefit.

Two other affections occur to me in which it may prove useful, tetanus and puerperal convulsions, in both of which it has been administered with advantage by the mouth, and should an opportunity offer I shall certainly make a trial of it in hydrophobia.—*Indian Medical Gazette.*

#### THE BRITISH MEDICAL ASSOCIATION.

THE forty-second annual meeting of this Association, held at Norwich during the past week, was unfortunately the reverse of a success; why this should be we are unable to divine. The papers announced to be read were quite up to the average in point of interest, whilst the rendezvous chosen has great historic and antiquarian attractions. The surgical instrument department was also more than usually well represented, most of the principal makers sending large stocks, with several novelties, supplemented with a magnificent display of microscopes by Messrs. Pillischer, Collins, &c., the former introducing for the first time in England some valuable pathological specimens, which were the admiration of all beholders. Amongst those we examined were specimens of carcinoma of liver, pneumonia and emphysema of the lung, diseased kidney (Bright's), cirrhosis of liver, bronchitis chronica, human spinal cord, &c. All, however, proved futile to attract visitors, and when, on Wednesday morning, the register of members was issued, less than 190 had put in an appearance. Readers of papers grumbled at having to hold forth to comparatively empty benches, and exhibitors appeared chagrined at being unable to do business.

Tuesday's proceedings were chiefly of a preliminary character; the Committee of Council and of State Medicine met. Several members of the Association attended the Cathedral service and listened to a discourse by the Rev. Canon Heaviside. A general meeting was afterwards held, when the President, Sir Wm. Fergusson, resigned his position, and Dr. Copeman, of Norwich, was installed in the vacant chair, and delivered an address. A vote of thanks to the ex-President was passed, the Report of Council read and adopted, and the re-election of Mr. Fowke, the general secretary, concluded the day's programme.

In Wednesday's proceedings a little more interest appeared to be taken, and some of the papers attracted a fair sprinkling of hearers. The following were set down for the several sections:—

#### MEDICINE.

- RANSOME, ARTHUR, M.D. Some Observations on the Mechanism of Cough.  
 FOTHERGILL, J. MILNER, M.D. The Systemic Indications of Chronic Bright's Disease.  
 MAGNAN, Dr. (Paris), and MIERZIEWSKI, Dr. (St. Petersburg). On the Anatomical Lesions in General Paralysis, illustrated by Microscopic Preparations.  
 ROSS, JAMES, M.D. On the Action of Mercury.  
 RINGER, SIDNEY, M.D. On the Action of Croton-Chloral in Certain Forms of Megrim.  
 THOMPSON, JAMES, M.B. Leamington Spa; Climate; and Mineral Springs.  
 PETER, Dr. (Paris). 1. Accidents that may happen to Pregnant Women Suffering from Disease of the Heart. 2. Effect of Tobacco-Poison on the Vagus Nerve. 3. On the Plessigraph.  
 PRANGLEY, T., Esq. (Aylsham). On Diphtheria.  
 BRADBURY, J. B., M.D. Notes on Six Cases of Hydatid of Liver treated by Puncture.

#### SURGERY.

- BAKER, J. WRIGHT, Esq. Case of Lithotomy; the Nucleus of the Stone being a broken piece of Elastic Catheter.  
 CORMACK, SIR JOHN ROSE, M.D. Successful Resection of the Shoulder Joint in Case of Gun-shot Wound.  
 BARWELL, RICHARD, Esq. A New Method of Treating Chronic Synovitis, more especially of the Knee.  
 DRYSDALE, C. R., M.D. When, and for how long, should Mercury be used in the Treatment of Syphilis?  
 CORMACK, SIR JOHN ROSE, M.D. Recovery from Apparent Death induced by the Inhalation of Chloroform: a Case described principally with a view to show the Therapeutic Value of Inversion of the Body when there is Syncope from General Anæmia.  
 SIMS, J. MARION, M.D. 1. Nélaton's Method of Resuscitation from Chloroform Narcosis. 2. On the Management of the Pedicle in Ovariectomy.  
 CLOVER, J. J., Esq. New Apparatus for Administering Ether, &c., with or without Nitrous Oxide.  
 DE MERIC, VICTOR, Esq. Hereditary Syphilis in the Adult.

#### OBSTETRIC MEDICINE.

- DUNCAN, J. MATTHEWS, M.D. Laboratory Note: on the Tensile Strength of the Fœtus.  
 TAIT, LAWSON, Esq. Operations for Fibroma of the Uterus.  
 STEELE, A. B., L.K.Q.C.P. On the Treatment of Mechanical Dysmenorrhœa and Chronic Induration of the Cervix Uteri.  
 DRYSDALE, CHARLES R., M.D. On Dysmenorrhœa.  
 WRIGHT, FREDERICK W., M.D. On Decoliation as a Mode of Delivery in Arm-Presentations.  
 HICKS, J. BRAXTON, M.D., F.R.S. On the Adaptation of the Galvanic Cautey in Gynæcology.

#### PUBLIC MEDICINE.

- SMART, W. R. E., M.D., C.B., Inspector-General of Hospitals and Fleets. On the Relative Frequency, the Causes and Modes of Suicidal Attempts in the Navy and Army.  
 RUMSEY, H. W., M.D., F.R.S. The Correlation of Sick Poor Relief and Public Health Administration.  
 BEVERLEY, MICHAEL, M.D. (Norwich). Hospital Hygiene, illustrated by Reference to the Norfolk and Norwich Hospital, in the Past, Present, and Future.

FOX, CORNELIUS B., M.D. Water Analysis; as it should, and as it should not be performed by the Medical Officer of Health.

MACINTOSH, ANGUS, M.D. 1. The Cause, Mode of Propagation, and Non-Contagious Nature of Enteric Fever. 2. A New System of Ventilating Sewers and Drains.

In the evening a *soirée* was held in St. Andrew's Hall, which was well attended.

Before quitting Norwich we may as well mention a few of the principal objects in this interesting city. First of all is the Cathedral, with its almost unequalled architecture of the Norman and early English periods, a volume of history in itself, which time seems feeble in its attempts to destroy. Then there are the new sewerage works and farm, filtering-beds, &c., capital illustrations for those who wish to see practically carried into effect one of those important problems which have for some time past occupied so much of the attention of sanitarians. Then there are the factories, none of them pigmies, and one the largest by far of its kind in the world—we refer to the mustard and starch manufactory of Messrs. J. and J. Colman, over which we were courteously shown and the whole processes described to us—from the white and brown mustard seed after it is threshed, through its various stages of crushing, separating the husks, and pounding with a hundred steam mortars until the refuse came out in oil-cakes for cattle and manure, and the mustard-oil was expressed for medicinal purposes, of the value of which our readers are well aware. Mustard has for a long time past been one of those puzzles which the framers of that excellent measure the Adulteration Act and analysts have been unable to deal with. Knowing from experience that the public could not endure mustard pure and simple, manufacturers determined at all risks to make the article what it always had been, and in order to avoid any infringement of the Act, we observed upon the packets we took up, printed in type big enough for any one to see, "this preparation is an admixture of pure mustard with farina and choice condiments;" whilst upon other packets we noticed the word "genuine." Upon inquiring what was the general taste with regard to the two articles, we were informed that the public would not have the "genuine" at any price, the sale of which was infinitesimal in comparison with the mixed article; but that they issued it in this form in order to comply with the Act, and that there should be no difficulty in the way of obtaining the pure article wherever it was preferred. We think this course both fair and honourable, and the committee which recently sat upon the Adulteration Act appear to hold views in the same direction. It is one thing to prevent dishonest traders dealing fraudulently, and so to protect the public from slow poisoning; it is another to compel an honest manufacturer to make an article which will not sell, and which, when so made, is both inferior and distasteful. A visit to the manufactory of Messrs. Colman has removed from our minds many little prejudices, and we would suggest that a deputation from the Food Committee of the House of Commons should pay an unexpected visit to a manufactory here and there; to our minds they would get more useful hints than by taking the evidence of all the experts in the kingdom.

Having gone beyond our intention with a description of some of the points of interest to which we were attracted, we must express briefly the pleasure our visit to the Norfolk and Norwich Hospital gave us; it is certainly one of the best of provincial hospitals it has been our lot to enter. There were also several minor and special hospitals, museums, factories, &c., which time did not permit us to visit; but on the whole, we were both pleased and edified with what we saw in the city of Norwich, and regret that so excellent a programme was so badly patronised, and the forty-second meeting of the British Medical Association so meagrely attended.

## Correspondence.

### CROUP.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—A few remarks on this subject from an experienced mother and home nurse may not be unacceptable. Your correspondent, last week, asks for information as to the ages when the attacks usually commence and disappear. I believe he is correct in supposing that the disorder is rare previous to the age of two years, but that immunity may be due to the greater care taken of very young children in protecting them from cold: at two years of age they begin to run about, and may get their feet wet, stand in draughts of air, or run out of the house without sufficient clothing in winter; this is very likely to happen with the children of the poor. With reference to the period in a child's life when the attacks from this dangerous disorder may be expected to cease, I know that they may take place after the seventh year; one of my own children had a very severe seizure when he was in his tenth year. The following extract from a communication which I contributed to one of your contemporaries may be of some use to your readers who are interested in the subject. I may say that I have never had occasion to call in medical aid after my first experience of the disorder, but I was always able to subdue an attack in an hour, by applying remedies immediately upon hearing the first sound of the cough:—

Croup may be regarded as an insidious disorder, because in very many cases the first notice of it is the peculiar cough—never forgotten when once heard—which tells that the enemy has made considerable advantage, and that prompt measures are needful.

Most maladies—especially those of children—are indicated by certain symptoms before the actual disorder develops itself, thus restlessness, languor, loss of appetite, and numerous little signs will in general point out that all is not right; but with croup it is not always so—the child will go to bed apparently in its accustomed health and spirits, after having enjoyed its food and played about as usual during the day. In a few hours—generally about midnight—a croupy cough will arouse everyone within hearing.

The sound of this cough is not easy to describe to those who have never heard it; I believe it is generally understood to have a harsh, metallic sound, with some resemblance to the bark of a dog; this comparison, singular and vague as it is, gives as good an idea as it is possible to convey by description.

It is often difficult to discover the precise cause which has induced an attack of croup, especially when it comes on without those premonitions which usually augur a cold; in two instances I have been able—after taking pains in the matter—to trace a croupy cough to peculiar causes which ought to be made known; the child, on one occasion, had been allowed to sit with its back to a window for some time; the window frame although shut down, was not well protected from the weather, for upon placing the hand over the crevices, a great draught of air was perceptible; the other attack came on after the child had been taken out for a drive, and though in a close carriage, the little one had been sitting (on its nurse's lap) at an open window facing the wind.

These are "trifles"—so called—but when disregarded they become formidable in their results. The merest trifles have power in them to produce mischief, if not guided by intelligence nor superintended with care; and children who have once suffered from an inflammatory attack of the throat or chest, are thereby more susceptible, and require to be scrupulously guarded against any invasion from (apparently) insignificant quarters.

Where there may be reason to fear that a child—who is subject to croup—has taken cold and an attack threatens, it may be warded off by giving small repeated doses of ipecacuanha wine during the day. This is not the place, nor is it the province of the writer to prescribe; the family should therefore be consulted beforehand as to the precise quantity of ipecacuanha, in what proportion to be diluted, and how often to be taken.

The chest and back should be well rubbed with a liniment at bed-time, and the usual little comforts and attentions for a cold—not necessary to be enumerated—will mostly complete the preventive treatment.

When, however, it is found that croup has actually set in, an emetic should be given without delay; and unless some



person of judgment can undertake the management, the wisest plan is to send for the doctor at whatever time of night. I have used the word "judgment," and have avoided the hackneyed and fallacious term "experience," because what is really wanted at such times is a person possessing a *knowledge* of the disorder, and the necessary capabilities to put such knowledge into practice.

The cough coming on at an unreasonable hour of the night, is too often made an excuse for neglecting it; the nurse perhaps unwilling to arouse herself or to disturb others, she waits and waits and does nothing, with the vain hope that the attack will "go off"—the croup when once set up does not subside without active remedies: every minute of delay adds to the mischief. A homely proverb tells us that "delays are dangerous," and in nothing are they more dangerous than in the neglect of prompt measures at the first appearance of symptoms which are truly premonitory.

In the Registrar-General's Quarterly Report, just issued, remarking on the high death-rate amongst children, it is said, "*I fear that often little notice is taken of illness until secondary symptoms appear, when medical aid is too late.*"

All persons who have the charge of little children, should inform themselves of the best means to adopt where the earliest symptoms are noticed; it should be known by all mothers and nurses, that in croup a false membrane, or lymph, forms in the windpipe—increases very rapidly—impedes respiration—and if not dispersed or removed, would finally cause suffocation. Muscular action of the throat is therefore of the greatest importance; hence the value of emetics. I have seen the effect hastened by being given in warm water; it is also very beneficial to rub the chest, and between the shoulders, gently but *determinately*. A liniment may be used, but the hand rubbing only is very effectual, if properly done; it helps to dislodge the obstructing substance in the windpipe, and is then more easily forced up by the effort of coughing.

There is an impression prevalent that children become free from this disorder when they complete their seventh year, but this idea is erroneous and dangerous.

In some "Hospital Notes on Croup," lately published in one of the leading medical journals, numerous cases are given in which tracheotomy was performed, and some of the patients were stated to be at ages considerably above seven—viz., ten, eleven, and there were two at sixteen years. In many of the cases which proved fatal, the patients had been neglected for several days, and their symptoms becoming urgent, they were taken to the hospital in an all but hopeless condition.

I believe these and similar cases may be considered exceptional (the greatest number of croup attacks happening at the age of five), but they are sufficient to take warning from, for many persons relax precautions at the seventh year, under the idea that all danger has then gone by.

I am, Sir, yours obediently,

MATER.

## Medical News.

**Apothecaries' Hall.**—The following gentlemen passed their examination in the Science and Practice of Medicine and received certificates to practise on Aug. 6th:—

Brady, Owen Cornelius, Vernon Road, Birmingham.  
Mitchell, Charles Joseph Carter, Kempston, Bedford.

The following gentlemen passed their primary professional examination on the same day:—

Lewis Berkley Calcott, Robt. Haselden, Walter Relf Pearless, and Alfred Upton, St. Bartholomew's Hospital;  
Sidney Geo. Parkinson, St. Mary's Hospital.

**Scene in a Lunatic Asylum.**—An extraordinary action to recover damages for injuries sustained through alleged negligence was tried last week at the Bristol Assizes before Mr. Justice Brett and a special jury. The plaintiff is Mr. Broad, the son of a retail merchant residing at Falmouth, and the defendant is Dr. Lyle, the resident medical superintendent of the Wanford House Lunatic Asylum, near Exeter. In 1872 the plaintiff, owing to his father's placing some bar in the way of his paying his attentions to a certain young lady, became very ill, and ultimately insane, exhibiting a decided suicidal

tendency. He was at first removed to a farmhouse and attended by two keepers, but subsequently it was found necessary to send him to a regular asylum. He was accordingly removed to Wanford. He was very mad whilst there, and attempted to jump from the window on one occasion. In December, 1872, early one morning, the door of the room in which the plaintiff was confined was left unlocked by the attendant, who had brought him his clothes, and plaintiff escaped, made his way to one of the upper galleries, smashed the window, and then leaped out, falling a distance of thirty feet. He was very much injured, but the effect of the shock was to restore his reason. Paralysis was the result of the injuries received from the fall, but his reason had been perfect ever since. Medical evidence was given to show that, in all probability, he would never recover the use of his limbs.—Mr. Lopes, Q.C., in defence, submitted that the defendant was merely the servant of the committee for the institution, and in no way liable, and that if he were to be held so, it would be tantamount to his ensuring the proper discharge of every duty by all the people engaged in the establishment. He also submitted that the action should have been brought within twelve months, which it had not, and that notice of action should have been given.—Mr. Cole, Q.C., submitted that there was a statutory duty cast upon defendant to carry out the rules of the institution, and he had neglected to do so.—Mr. Justice Brett said the evidence showed that the defendant had given every order that was necessary, and no want of compliance with those orders had ever been called to his notice until after this occurrence. He was of opinion there was no evidence of neglect for which defendant was legally responsible. Plaintiff was, therefore, nonsuited, but leave was given to him to move for a new trial on the ground of misdirection.

**List of Indian Medical Candidates** who were successful at both the London and Netley examinations, having passed through a course of instruction at the Army Medical School at Netley, August, 1874:—

	No. of Marks.		No. of Marks.
Leckler, H. M. ...	5,868	Malcolm Smith, G. J. ...	4,465
Corbett, J. L. ...	5,626	Lancaster, J. ...	4,450
Browne, S. H. ...	5,385	Yeld, H. P. ...	4,300
Mair, E. ...	5,339	Fullerton, J. C. ...	4,075
Benson, P. H. ...	5,208	Warden, C. J. H. ...	4,055
Armstrong, J. ...	5,125	King, W. G. ...	4,003
Warder, R. ...	4,825	Fatterson, D. A. ...	3,980
Dawson, L. R. ...	4,798	Wilkins, J. S. ...	3,908
Shircore, J. C. ...	4,650	Barren, W. A. ...	3,602

**The Medical Education of Women.**—Miss Philomene Ratincx of Antwerp has passed a brilliant examination in the anatomical sciences before the combined jury of Ghent and Louvain for the faculty of medicine. She has also obtained the royal diploma for the treatment of clubfoot. Two Circassian ladies, at the Russian Academy of Medicine and Surgery, propose to return to their own country to practise the profession when they have taken their degrees.

**The King and Queen's College of Physicians and Female Licentiates in Midwifery.**—Miss Ellen Greenstreet presented herself for examination on the 6th instant, and passed the examination in a very creditable manner. Miss Greenstreet was lady superintendent of Sir Patrick Dun's Hospital. The question whether this diploma is or is not registerable may be raised at any time. There is little doubt, however, that the diploma is a registerable qualification.

**College of Physicians, Ireland.**—At examinations held on Aug. 4th, 5th, and 6th, the following gentlemen obtained the licences in Medicine and Midwifery:—*Medicine*: Arthur Henry Cole Dane, Edward Michael Angelo Hogan, Agmon Blathwayt Vesey. *Midwifery*: Samuel Thomas Gordon, Agmon Blathwayt Vesey.

**Bequests to Medical Charities.**—By the will of Thomas Banting, late of Worthing, Sussex, who died on June 20, the testator bequeaths to the Royal Hospital for Incurables, Putney; the British Home for Incurables, Clapham; the Idiot Asylum, Earlswood; the Worthing Infirmary, the Sussex County Hospital, St. Mary's Hospital, Paddington; the Westminster Hospital, King's College Hospital, the Middlesex Hospital, the Charing Cross Hospital, the Lock Hospital, Harrow Road; the West London Hospital, the Consumption Hospital, Brompton; the Cancer Hospital, Brompton; the City of London Hospital, Commercial Road; the Hospital for Sick Children, Great Ormond Street; and the Great Northern

Hospital, Caledonian Road, £1,800 each; to the Paralytic and Epileptic Hospital, Queen's Square; the Royal Westminster Ophthalmic Hospital, the Orthopaedic Hospital, Oxford Street; and University College Hospital, £900 each; to the City of London Truss Society, £450. The legacy duty, amounting to upwards of £6,000, on all these legacies is to be paid out of the estate, so that the charities will get the amounts given to them clear and free from all deductions. The testator gives legacies to several non-medical charities besides, amounting to about £30,000, also to members of his family and others, and the residue of his property is to be applied and disposed of by his executors to the best of their judgment, with a view to help convalescent persons needing the beneficial climate and other advantages of Worthing, and he desires the charity to be called "Thomas Banting's Memorial."

**St. Andrew's Medical Graduates' Association.**—The Committee appointed at the last meeting of the members, held December 30th, 1873, met on Friday, July 31st, at 12 Hinde Street, Manchester Square. Present: Dr. B. Ward Richardson (in the Chair), Drs. Ballard, Cholmeley, Christie, Cleveland, Paul, Sedgwick, Wynn Williams, and the Hon. Secretary. The treasurer reported, that after payment of the working expenses, and the cost of the Transactions, there still remained a balance in his hands of £60 14s. 1d., notwithstanding the fact that 78 members had still omitted to pay their subscriptions. Dr. Sedgwick moved, and Dr. Cholmeley seconded: "That a sum of twenty-seven pounds be voted out of the surplus for the 'Mrs. Day Fund.'" Carried unanimously. Dr. Richardson moved, and Dr. Sedgwick seconded: "That a sum of ten guineas be applied out of the surplus to give a trifling recognition to Dr. Paul for his valuable services as treasurer during the existence of the Association." Carried unanimously. Dr. Wynn Williams moved, and Dr. Ballard seconded: "That the balance of the surplus be placed in deposit in the names of Drs. Richardson and Paul to meet any future contingencies arising in connection with the University Committee of the Association." Carried unanimously. It was also resolved that subscriptions at present unpaid should be forwarded to Dr. Paul for the same purpose. The proceedings terminated with a vote of thanks to the chairman.

**The Temperance Breakfast.**—A breakfast was given at the Royal Hotel, Norwich, on Friday, to the members of the British Medical Association, by the President of the National Temperance League, who was accompanied by Major-General F. Eardley-Wilmot, F.R.S., and the Rev. Canon Lee Warner. The venerable President of the League (Mr. Samuel Bowley) welcomed his guests, about 100 in number, in a short but genial and temperate address, which was entirely free from dogmatism, and the other two members of the deputation followed suit in a similar spirit, completely disarming opposition by the candour and courtesy with which they presented the claims of a movement that has often been sadly injured by the censorious spirit in which it has been advocated. The first speaker was Dr. T. Milner Fothergill. An animated discussion ensued, at the conclusion of which Dr. Gibbon moved, and Dr. Tuke seconded, a vote of thanks to the Chairman and the National Temperance League, which was carried by acclamation, and the proceedings, which had been conducted through, and with great good feeling, were then brought to a close.

## Gleanings.

### Experimental Researches on the Movements of the Uterus.

In an analysis of German works, Dr. Puech publishes the principal results of the experiments of Oser and Schlesinger as to the influence of suppression of respiration and arrest of circulation on the movements of the uterus, and on the rôle of the nervous system in these phenomena. The experiments were performed on young rabbits not yet pregnant, but capable of becoming so.

In these animals the uterus is immobile under regular respiration, but is subject to spontaneous movement after gestation.

The following are the chief conclusions:

1. The suspension of respiration provokes, after ten to thirty seconds, general contractions of the uterus. So soon as respiration is re-established the old order returns.

2. Compression of the aorta, produces, at the end of 80-100

seconds, a general contraction of the uterus. Compression of the aorta in post-partum hæmorrhage is thus perfectly justifiable.

3. The contractions of the uterus which supervene a few seconds after arrest of respiration may not be considered as a peripheric irritation of the organ produced by the special action of the venous blood. If arrest of respiration be combined with compression of the aorta, contractions supervene at the end of 10-30 seconds, and not slowly as after simple compression of the aorta.

These phenomena are always influenced by troubles of the nerve centre.

4. Copious hæmorrhages determine also, at the end of several seconds, generalised contractions of the womb, explicable solely by irritation of the nerve centres. To refute the objection that anæmia may be the cause of these contractions, the aorta or vena cava were compressed as if to prevent hæmorrhage, which did not occur until 15 seconds after section of the carotids, when the uterus was strongly contracted.

5. The obliteration of the four cerebral arteries provoked likewise, after several seconds generalised uterine contractions. Ligatures applied so as to lose as little blood as possible produced a result identical with that of suspension of respiration.

6. After section of the spinal marrow contractions of the uterus did not supervene more speedily on suspending respiration than on compressing the aorta; hæmorrhage and occlusion of the cerebral arteries were now without effect on the womb.

What now necessarily follows from these experiments is the fact that if serious interference with the cerebral circulation caused uterine contraction, the lack of communication between the uterus and the brain should suppress these contractions, every hæmorrhage too, no matter how great, should remain without effect.—*Gaz. de Joulin, Gaz. des Hôpitaux.*

### Transfusion of Blood in the Insane.

PROF. MEYNER (Wien. Med. Presse) states that the operation of transfusion was frequently performed in England in the seventeenth century in patients suffering from mental affections, but that it could not be supposed that in such cases, even under the most favourable circumstances, the operation would be attended with favourable results.

In cases of melancholia, however, it might be possible to look for a favourable result from the operation, since the transfused blood might act as an irritant, and, like febrile affections, cause an intermission of the state of melancholy. In three cases in which the operation with defibrinated blood was performed by Redner, the pulse rose from fifty to eighty beats per minute, and two of the patients, half an hour after the operation, felt better, and were more cheerful; but this improvement was but transitory. A quarter of an hour later the pulse could scarcely be felt; vomiting, micturition, and defecation took place, followed by a chill of violent character, and fever of three days' duration.

### Injurious Effect of Human Milk upon Dogs.

M. DEVILLIERS stated in a report read before the Académie de Médecine on this subject that the researches which he had made proved human milk to possess the quality of rendering dogs rachitic.

Advantage had been taken of this circumstance in the employment of the milk of dogs for the nourishment of young children suffering from rachitis. What the result of this treatment proved to be is not stated; but in the discussion which followed the reading of M. D.'s report it was remarked that this injurious action of human milk had already been observed in cases where young women had used puppies for "drawing the breast." The animals were observed under these circumstances to succumb speedily.—*Bull. Gén. de Thérap.*

### THE CANCER HOSPITAL, LONDON (founded 1851).

There is a VACANCY at this Hospital for a RESIDENT HOUSE SURGEON and REGISTRAR. Candidates must be unmarried, registered Members of the Royal College of Surgeons of England, and thoroughly conversant with the use of the microscope. The Honorarium 100 guineas per annum, with Board and Residence. Applications with Diploma and Testimonials to be addressed to the Chairman of the Weekly Board, 167 Piccadilly, W., on or before August, the 27th next.

**MEDICAL REGISTRATION (SCOTLAND).**—Notice is hereby given, that the Scottish Branch of the General Council of Medical Education and Registration, having appointed RICHARD INGLIS, M.D., to be Medical Registrar for Scotland, the Office has been removed from 28 Albany Street to 33 Albany Street. Office hours, 12 to 3; on Saturdays, 11 to 1. Edinburgh, 4th August, 1874.

# The Medical Press & Circular.

"SALUS POPULI SUPREMA LEX."

WEDNESDAY, AUGUST 26, 1874.

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## Original Communications.

### LECTURES ON BRIGHT'S DISEASE, WITH SPECIAL REFERENCE TO PATHOLOGY AND TREATMENT,

By D. CAMPBELL BLACK, M.D.,  
One of the Physicians to the Hospital.

#### LECTURE VII.

(Continued from page 149.)

**Prognosis.**—As a general rule, it may be laid down that in proportion to the vascularity of an organ, so are the chances of structural changes following inflammation, and the persistence thereof. Acute inflammation of the kidney is at all times an affection of considerable gravity. The gravity of the attack may be rationally estimated by the extent to which the function of the organ is interfered with, and this may reveal itself by departures from the quantity and quality of the fluid excreted. In general, then, if the amount of urine be considerable, the quantity of albumen contained in it small, the specific gravity not far from normal, if there be few blood globules—these constitute a favourable indication. Sometimes, though very rarely, cases in which the urine presents little variation from that of health terminate very abruptly in death, while cases in which the contrary condition exists terminate favourably.

But the state of the urine alone does not suffice in forming a prognosis; the condition of the various organs of the body must be examined, and due weight be accorded to the result of the examination.

The cause of the nephritis must also be taken into consideration. Mechanical albuminuria—static congestion of the kidney—as in the latter months of pregnancy, may be looked upon as the least serious of the various forms of albuminuria. That following scarlatina, if properly treated, is not usually serious. If death does not take place within the first fifteen days, a favourable prognosis may be entertained.

In the case of persons frequently exposed to cold and addicted to alcoholic indulgences, an unsuspected chroni-

nephritis may take on the symptoms of an acute nephritis. The prognosis in such a case would be correspondingly grave.

The persistence of albumen in the urine after the disappearance of dropsy is an unfavourable sign; an acute attack frequently supervenes, which ends in intractable structural changes.

Should the nephritis be due to an exposure to causes which have been removed or combated by treatment, and the albumen gradually disappear, and the dropsy disappear in a corresponding manner, a favourable termination may be predicted. Exceptions to this, as to all other rules, must be held as possible. Nephritis consequent on scarlatina, if promptly recognised and appropriately treated, terminates favourably in the majority of instances.

From what has been already advanced it will be obvious that the presence or absence of tube casts, their nature, and the condition and quantity of the urine, must receive attention likewise.

The prognosis in cases of *chronic nephritis* is of the greatest gravity. The termination of the vast majority of such cases is unfortunately in death. The duration of the affection will depend on the gravity and extent to which the functional derangement of the kidney exists. Hence, if the quantity of albumen passed in the urine be small, capable of being restrained by medicinal agents, or the loss be compensated by careful and appropriate regimen, if dropsy be inconsiderable or have disappeared, if the urine approach its normal specific gravity, and if there be no complication of internal organs, the patient may live a long time, even with considerable structural disorganisation of the kidney.

Dr. Gregory mentions the case of a man who suffered from dropsy depending on renal disease for the long period of *thirty years*. On admission into hospital the urine was found highly coagulable; its specific gravity was 1020, and but 12 ounces were voided during the twenty-four hours. Eleven days afterwards the quantity secreted amounted to 44 ounces, its specific gravity was 1018, and contained no albumen. During the patient's stay in hospital the amelioration in his condition was very striking.

In *chronic nephritis* the size and nature of the tube

casts are of weighty significance relatively to prognosis. Large granular and large hyaline casts indicate, as we have seen, an advanced condition of renal degeneration, that contraction of the kidney is proceeding; and the greater the number of large tubes, so may the rate at which structural changes are proceeding be estimated.

In direct proportion to the size and number of tube casts, so likewise will the specific gravity of the urine be found to be diminished, and its contained albumen augmented.

The greater the quantity of albumen in the urine, the greater the gravity of the case. Dr. Christison, however, thinks that the contrary obtains.

Fatty tube casts, with fat cells in the urine, indicate advanced disease; yet recovery has taken place even in cases thus far advanced. Dr. Johnson has seen recovery in cases where fat cells had existed in the urine continuously for many weeks, and after albuminuria had existed for two or three years. The same authority relates the case of a medical man who suffered from albuminuria, more or less, during thirty years.

A marked augmentation of urine often coincides with the disappearance of dropsy and the diminution of albumen in the urine. Occurring in the comparatively early stages, this must be regarded as a favourable sign; but in later stages an augmentation of the urinary secretion indicates rather advanced desquamation of the tubes, and is of correspondingly serious augury. Fatal cerebral symptoms are often preceded by a diminution or complete suspension of the urinary secretion.

Concomitant affections of other organs will necessarily complicate and add to the gravity of chronic nephritis.

*Retrospective Summary.*—In ultimate composition living animal structure consists of minute bodies, termed molecules of organisation, and are divisible into three kinds, nitrogenous, fatty, and mineral.

From these molecules are formed cells, through whose agency, and by properties peculiar to them in the vegetable as well as in the animal kingdom, are effected what are termed the organic processes, viz., those of secretion, assimilation, and excretion.

By a cell is understood a spheroidal body, having a wall or envelope, and containing material termed protoplasm, which may be regarded as the structural unit of the organism. In the higher organisms each cell contains a round central body, termed a *nucleus*. At the bottom of the animal scale, however, all the phenomena of life are exhibited by masses of protoplasm containing no nucleus.

Cells may be divided into—(1) *Centres of nutrition*, which are merely nucleated cells, from the nucleus of which successive broods of young cells are developed. The function of a germinal centre is to withdraw from the blood material of nutrition for the repair and construction of the special organ or texture in which it may be situated. The original centre of nutrition—that from which the whole organism is formed—is the germinal spot of the ovum. (2) *Secretory cells*. It is the function of the secretory cell to elaborate a new compound required for ulterior purposes in the economy; for instance, to facilitate assimilation, digestion, or locomotion. (3) *The Excretory cells*. This variety differs from the former in that their function consists in the removal of effete and useless material—material which, if retained, would react upon the system as a poison.

All cells are separated from the blood simply by the interposition of a thin membrane.

Each cell possesses a special property, according to the gland or structure in which it is situated. Thus, while no structural peculiarity is recognisable, the liver cell secretes bile, that of the sublingual and submaxillary gland saliva, and that of the mamma milk.

Secretion appears to take place between the nucleus and cell wall, and is evidently the product of the nucleus.

Cells possess three essential properties, viz., that of vital selection—whereby each cell appropriates according to its special wants—osmosis, and chemical combination.

To produce healthy structure to replace the waste of

tissue, the protoplasm supplied to the germinal centre must be suitable or pure, and this will depend on the condition of the blood from which it is derived.

Given healthy blood, healthy protoplasm is elaborated by the germinal centre, and healthy tissue to replace that which has become effete, and is being converted into ultimate products by oxidation.

In order, likewise, that secretion and excretion be normal, the blood supplied to the secretory and excretory cells must, in like manner, be healthy. Otherwise perverted chemical combination ensues, leading to structural changes in the cell and ultimate disorganisation of the organ.

The normal correlation of cell and blood may be disturbed in a twofold manner. In the first place, the blood may be healthy, but its supply may be deranged; hence disordered circulation even of pure blood may induce malnutrition and mal-secretion and excretion. In this case the property of *osmosis* possessed by the cell is the first to suffer. In the second place, perverted correlation of cell relatively to the blood may be primarily due to blood impurity, leading, however, in like manner, to ultimate disorganisation in consequence of abnormal chemical changes.

The circulation of the blood is under the influence of the nervous system. The motor system carries on the circulation; the sympathetic regulates the tonicity of the minute arterioles. Section of the sympathetic, or transient impressions exercising a paralysing influence upon it, is followed by congestion of the particular organ or structure to which the portion of the nerve so influenced is supplied. Hence the influence of cold upon the loins, by acting upon the splanchnic nerves, may induce simple nephritis, which may, of course, proceed to ulterior pathological changes, ending in destruction of the kidney and death. (*Vide* pages 290 and 291.)

The pathological changes which the kidney undergoes in chronic nephritis may, in general terms, be said to be either inflammatory or fatty. The inflammatory consist in congestions and effusion of coagulable lymph, with contraction. The fatty in degeneration (*vide* page 463) of the protoplasm of the cells and structure of the kidney. Due oxidation of tissue, we have seen, is essential to healthy repair and secretion. Decarbonised blood will effect retrograde changes of tissue, resulting in the formation of fat. Alcohol is a hydrocarbon; excessive indulgence in it causes the blood to be surcharged with carbon—an effect striking enough in the appearance of the habitual drunkard. Hence observation and experience abundantly prove that amongst the most frequent causes of chronic nephritis and cirrhosis, is recognised chronic alcoholism.

*Treatment.*—In the treatment of inflammation of any portion of the body the indications will vary according to the stage of the disease, and consequently the period at which the patient comes under observation. If it be the initial stage that we are called to treat, we attempt to remove the cause, relieve local congestion, and thus restore the normal circulation and function of the part. Should the disease have passed into the secondary stage—viz., that of effusion, in addition to the foregoing, we endeavour to stimulate the absorption of the effused products. If evidences of structural changes exist, and if the function of the organ be impaired, endeavours must be directed with a view to repair, and of imposing vicarious duty on other organs.

There is perhaps no disease in which the fashionable waiting-upon-death of modern physicians is more to be reprehended than in the treatment of acute nephritis. If the history of the case furnish, as a presumable cause of the affection, an exposure to cold or damp—and the latter you frequently observe at this hospital, in this relation, in the cases of miners, who present themselves suffering from anasarca, which they are unable to account for—I say, if there be a history of exposure to cold or damp, with albuminous urine, with or without the other indications of nephritis, general bleeding should at once be resorted to. It is perhaps the most potent means of fulfilling the

indications which the first stage of inflammation furnishes. The quantity of blood removed ought to bear a proportion to the intensity of the febrile disturbance and the suddenness of the accession of dropsical symptoms.

That general bleeding has done good in these cases the testimony of competent and reliable physicians abundantly proves, and that it will and ought to do good reason teaches us to believe. The reaction against general bleeding limits us to one of two conclusions: either Nature cured inflammatory affections in times gone by, and the testimony and observation of the writers of these times are worthless, or the diseases of the one age are not curable by the means adopted in the other. To evade this peculiar dilemma the doctrine of change of type has been propounded—a doctrine I have no hesitation in pronouncing, one of the most melancholy that could be advanced to flatter conceit, palliate scientific imperfection, and condone a contemptible subservience to the caprices of fashion.

Nature's laws may change, but man's judgment, never!

The blood, we have seen, in acute nephritis, is surcharged with fibrine, and effusion of fibrine into the inflamed organ is one of the complications especially to be guarded against. General bleeding, it is well known, diminishes the amount of fibrine in the blood.

Should the symptoms be less severe, cupping over the region of the kidneys may take the place of bleeding, or after venesection may have been practised, the withdrawal of blood by means of cupping may follow, according to the indications of severity.

Should these methods be deemed too severe, blood may be withdrawn by means of leeches applied to the loins.

In either case the bleeding may be subsequently encouraged by the application of large linseed meal poultices, which may be advantageously covered or mixed with laudanum, or by hot fomentations applied to the loins. The poultices or fomentations should not be permitted to become cold, but should be repeated on the slightest fall of temperature. An excellent method of applying heat, with a regulated temperature, is supplied by the india-rubber bags suggested by Dr. Robertson, of the Town's Hospital, Glasgow. Alternately with these measures hot water baths should be employed. A feeling of oppression or faintness sometimes induced in this manner is to be guarded against. The skin should be carefully dried after the bath, the patient replaced in bed well covered, and the action of the skin encouraged by small doses of antimonial or ipecacuan wine, frequently repeated, small doses of compound ipecacuan powder, or James's powder may be substituted, or alternated with the former. Under all circumstances, exposure to change of temperature must be scrupulously guarded against. These are the methods by which congestion of the inflamed kidney is most likely to be relieved.

But should the patient not have been treated in the earliest stage—a circumstance indeed of the most frequent occurrence—in addition to the renal congestion there exists more or less effusion of coagulable lymph; this we endeavour to get rid of by stimulating absorption. Of all the remedies that stimulate the absorbents, none possess that property in a more marked degree than the preparations of iodine and mercury. Furthermore, mercury fulfils another important indication in the treatment of nephritis, it diminishes the amount of fibrine in the blood. And why should mercury diminish the amount of fibrine in the blood? It stimulates the function of the liver, and we know that fibrine is lost to the blood in passing through the liver, its nitrogen combining, as we have seen, with lower products of oxidation to produce urea. The more active the function of the liver the greater consequently will be the destruction of fibrine, and the amount of urea formed. In cases of nephritis, I am bound to tell you that with the vast majority of practitioners mercury is a drug tabooed. That it should be so I believe to be one of the many beliefs current among medical men, unfounded on reason, and contrary to the experience of competent observers. If you ask why, if mercury has a beneficial effect in other inflammatory

affections, it should not have an equally beneficial effect in nephritis, you are simply informed that in these cases it speedily causes salivation. I am not disposed to assent even to the truth of the objection; but even assuming it to be true, I answer that salivation is not a serious disease, and it certainly accords with my experience that the administration of mercury has mitigated the most alarming symptoms of nephritis, if it had not actually cured the disease. In the hospital I have given the bichloride of mercury in small doses, 1-16th of a grain, combined with iodide of potassium—a biniodide of mercury soluble in excess of iod. potass. being thus formed—and have satisfied myself that the quantity of albumen in the urine was thereby diminished. In cases of syphilitic cachexia its special indication will be too obvious to necessitate comment.

Recently I saw at the dispensary a boy suffering from nephritis with anasarca, consequent on scarlatina. Grey powder in two grain doses, with one grain of ipecacuanha, night and morning, were prescribed. Œdema of the face had taken place to such an extent that the boy could not see, being unable to open his eyes. There was also very great dyspnoea. I afterwards saw the boy in private. Exposure to cold had evidently aggravated his condition, as pulmonary Œdema had supervened. The treatment was persevered with, with the addition of antimonial wine and liq. ammon. acet., and the boy made a good recovery. In similar cases I would certainly advise grey powder and ipecacuanha, in addition to the treatment already referred to.

It is well to bear in mind that not unfrequently, evidently the worst cases recover, while apparently slight ones unexpectedly and suddenly terminate fatally.

In the more advanced stages of nephritis counter-irritation should be applied over the region of the kidney. As to the nature of the counter-irritant, difference of opinion may exist: cantharides has been objected to from a dread of its causing strangury, and consequently doing mischief; but in view of the fact that tincture of cantharides has itself been employed in the treatment of chronic nephritis, the objection should carry less weight. Rayer testifies to its good effects, though he remarks, "*c'est un remède incertain et qui pourrait être dangereux dans des mains inexpérimentées.*" I should certainly regard it as not only a dangerous remedy, but one whose *modus medendi* would seem to me perfectly inexplicable.

Should the application of cantharides to the loins be dreaded, counter-irritation may be established by tartar emetic ointment, croton-oil, iodine, &c.; and while the skin is tender mercurial or iodine ointment should be judiciously applied.

Instead of the ordinary counter-irritation, the actual cautery may be applied, or setons may be established for a like purpose. With a view to vicarious elimination of urinary constituents the bowels and skin should be acted upon. On no account would I advise you to have recourse to saline purgatives, for a considerable portion of the salines are eliminated by the kidney. Medicines which are eliminated specially by the bowels are therefore to be preferred. Elaterium may be given in doses of from  $\frac{1}{4}$  to  $\frac{1}{2}$  a grain in combination with colocynth pill mass, combined, should there be no contra-indications, with a little mass. pil. hydrarg.; scammony, gamboge, and castor-oil may also be beneficially employed.

The skin is best acted upon by baths, antimonials, and liq. ammon. acet.

Diuretics are actually employed at the present day in the treatment of acute and chronic nephritis—on what basis in reason, or common sense, I have ever failed to comprehend; I have always regarded it as an axiom in the treatment of inflammation, that rest to the inflamed organ is of the first importance. As well, in my opinion, command a man suffering from double pneumonia to leave his bed and take a three mile race as give stimulating diuretics in a case of nephritis. These diuretics *do act as such*, by causing transient congestion; and how they can

act favourably in nephritis may well tax the fertility of the most luxuriant imagination.

Diluents, however, may be employed with advantage; for if it be true, as we have postulated, that the solid constituents of the urine are separated in the convoluted tubes, then diluents in passing over the surface of the secretory glands would facilitate their removal by solution, as happens in the normal condition.

Scarifications of anasarctous parts is, as a rule, not to be advised; I have frequently seen diffuse erysipelatous inflammation supervene in consequence. The application of blisters for the removal of serum is a practice still more to be reprehended. What more likely than that an intractable slough should follow the application of a blister to a part with such depressed vitality?

Secondary affections must be treated on general principles. The diet of the patient should be of a nutritious description, consisting of animal food, milk, &c.; alcoholic drinks should be strictly forbidden.

Notwithstanding your utmost endeavours, nephritis will prove of the greatest gravity, but you will be acting worthily of your profession and of your duty to society, by treating this and all other diseases on the general principles of our art, established by time, talent, and the experience of our predecessors, to the extent that these harmonise with your mature judgments, condemning alike the influence of mere fashion and the sacrifices that a manly adherence to truth always entails.

## REPORT ON SYPHILIS.

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### DIAGNOSIS OF TERTIARY SYPHILIS OF THE TONGUE.

THERE was, it may be remembered, during last session, a very interesting discussion in the Royal Medical and Chirurgical Society of London on the question of disease of the tongue, in which certain new views were enunciated by Mr. Fairlie Clarke as to the diagnosis between syphilitic tongue and the disease called psoriasis, or tylosis of the tongue.

Dr. Alfred Fournier has recently (*France Médicale*, July 4) delivered a lecture at the Lourcine Venereal Hospital of Paris which is sufficiently to the point to make it worth translation.

In this case, as in the majority of lesions, says the lecturer, about which we have to speak this year, the practical question—the question which is of itself weighty—is that of the diagnosis. And here, more than elsewhere, this question demands careful study, for the majority of the lesions which may be confounded with tertiary affections of the tongue are lesions rather rare, ill-known, only described up to this time in monographs, and not yet having attained city-rights among the classics. You shall judge.

First of all, I shall just allude, in passing, to indurated chancre of the tongue, as a lesion which may possibly be confounded with those which occupy me.

Doubtless the lingual chancre may effect some objective resemblance with certain tertiary lesions which are indurated and circumscribed, like those, for instance, we have described under the term *glossitis*, ulcerating and plastic, but it will easily be distinguished from it by a deeper analysis of the symptoms, and especially by the morbid evolution.

The chancre, firstly, is not an ulcer, at least, in general, it is most habitually an erosion. Besides, it has a significant swelling of the glands, which is absent in tertiary syphilitic affections. Lastly, and above all, the chancre is a lesion which inaugurates syphilis, which serves as the forerunner of all the other syphilitic lesions; whilst tertiary syphilis of the tongue is a lesion which succeeds to others, and which has had before it quite a morbid series of special accidents. So that it is really with other mor-

bid states that the differential diagnosis of tertiary syphilis of the tongue has to be made—dental glossitis, smoker's glossitis, tuberculous glossitis, and canceroid.

1. *Dental Glossitis*.—We may give this name to certain lesions of the tongue produced by contact with broken teeth at the point where the tongue comes in contact with them.

When a point of the tongue comes in contact with a tooth, broken and rugged, with sharp point, or cutting edge, it inflames and becomes eroded; a knot of chronic inflammation is developed at the point, which is hard and elastic. Erosions continually renewed are produced by the constant contact of the broken tooth, and, at last, after a certain time, by degenerating into a true ulceration.

Now, this ulceration, resting on an indurated base, this ulceration of persistent and chronic character, may very well simulate an ulcerating syphilitic affection; and, in fact, numerous are the errors which have been committed in this matter. I have been assured of this lately by a distinguished dentist, who formerly was an hospital assistant—M. le docteur Delestre, whom I went to consult on this subject. "Not a week passes," he said, "that I am not consulted for cases of this kind, and among the patients I see there are a good number who, although they have never had syphilis, are nevertheless treated with mercury, only on account of these dental ulcerations, which have simply been considered as syphilitic."

It suffices, however, to be warned of the possibility of such an error, in order to avoid it. We will very easily recognise the dental glossitis by remarking the lesion which causes it, that is, the jagged tooth, which is broken in such a way as to ulcerate the tongue.

Circumscription of the lesion, and relation of vicinity with the diseased tooth, this is what should at once point out the diagnosis. As confirmation, let us add that filing or drawing the tooth suffices to get rid of the lesion in a few days. There is not then, truly speaking, any differential diagnosis to make; there is merely the possibility of a rude error to be explained, and when this is recognised, the error will at once be avoided.

2. *Smoker's Glossitis*.—Among the most authentic mischiefs due to tobacco-smoking, there is, you know, to be counted, a stomatitis of a very special character, and one which is wont to affect the tongue principally, and create a glossitis of not less special character.

Well, this glossitis, when it has attained an advanced size, may be confounded with tertiary syphilis of the tongue. Common practice bears witness to this. And, for my part, I certainly see every year a dozen of individuals, who, guilty solely of an exaggerated passion for tobacco, think themselves syphilitic, or have been treated as so, for lesions which tobacco has established in their mouth.

When arrived, indeed, at this high degree, the smoker's glossitis is marked by the following phenomena:—

The tongue is considerably modified in its aspect, it is rough on its surface, and covered with eminences, its edges are irregular, and as if tuberculated; it is covered in the middle part with a sort of whitish pellicle, which is cut across by striæ and furrows directed in all ways; it is indurated to a variable extent, either partially at its edges, or in its anterior third or half; lastly, it is eroded in different points to an extreme degree, truly *ulcerated*. The ulcerations which are then produced, the sole lesions which interest us, are of variable aspect; often they are multiple, disseminated and superficial, not going deeper than the most external parts of the mucous membrane; but sometimes, also, they are hollowed out, and pretty extensive, of the diameter of a piece of 50 centimes, or of an almond, resting on indurated tissue, and presenting a base which is irritated, red or yellowish, of bad aspect, &c. It is in these local conditions that they may, above all, be confounded with ulcerating syphilitic affections.

How, in such cases as these, are we to be enlightened as to the nature of these lesions? By the three following very simple considerations:—

1. History, exaggerated and chronic abuse of tobacco.



2. Age of the lesion and chronicity. We do not come to such an extreme degree of smoker's stomatitis, except slowly, and after many years. The mouth has been affected then for a long time.

3. The co-existence with these ulcers of the tongue of other lesions quite pathognomonic, namely, the *pearly plates* of tobacco.

This name is given to that whitish appearance, that kind of pellicular covering which is smooth and white, and which covers the tongue of old smokers, resembling what the tongue would be when covered with collodion or recently cauterised with nitrate of silver. These pearly plates are not met with in any other disease, even in the affection called psoriasis of the tongue, and are the undoubted witnesses of tobacco glossitis.

Besides, these pearly plates are not only seated on the tongue, they also occupy other points of the buccal mucous membrane, and notably a point favoured by them, where they are never wanting, the internal aspect of the cheeks, quite close to the commissures of the lips.

Thanks to these characters, and to other considerations, which it would be superfluous to mention here (antecedents, and actual syphilitic accidents), the smoker's glossitis is easily distinguished, at least, generally, from ulcerating syphilitic symptoms.

The difficulty is not here; but commences when there are on the same patient two morbid influences—tobacco on one hand, and syphilis on the other.

In such a case, it is often difficult, even sometimes impossible, to make a differential diagnosis.

To say it in passing, nothing is more singular as an accident, and nothing also more obstinate than these complex lesions of syphilis and tobacco on the tongue.

Certain patients come before us in a truly frightful state. Their tongue does not show a square centimetre of normal tissue; it is indurated in its anterior third or half; quite deformed at its edge; white and pearly at certain points; eroded or ulcerated in others, and that for a great extent; contused, with bridles of old scars, and vestiges of old ulcerations; traversed in all directions by erosive striæ or ulcerated and bleeding furrows.

And I would add, nothing more difficult to cure than such lesions, because of the diseased tissues we have to do with, tissues evidently modified in their texture by the inveterate custom of smoking, *cooked* or *smoked*, as M. Ricord used to say, and these cicatricial tissues, which ill lend themselves to a reparatory process, ulcerate anew on the slightest occasion. Hence, necessarily, slow and difficult scarring takes place.

3. *Tubercular Glossitis*.—You know that, under the influence of the tubercular diathesis, there sometimes take place in the mouth some ulcerative lesions, not only analogous, but identical in nature with those of phthisis of the larynx and intestinal phthisis.

This affection, which, clearly pointed out by M. Ricord, has received the name of *buccal phthisis*, chiefly affects the tongue, and is announced by ulcerations of more or less extent, more or less hollowed out, of varied aspect, and sometimes simulating tertiary ulcerated syphilitic tongue.

To differentiate these lesions from ulcerating syphilitic affections there is but little account to be taken of their objective character—that is, of the character of their base, edges, or of the condition or form of the base, its extent, &c., even of those yellowish stains in the neighbourhood, pointed out by M. Trélat as a good character sufficient to determine the nature of the lesion, stains which, besides, are far from being constant, and which, for my part, I have rarely observed. All that is subject to variations, and offers only presumptions which often deceive, so that the diagnosis, in a good number of cases, can only be founded on more general considerations of another kind, such, in fact, as the two following:—

1. A notion of the antecedents and actual symptoms. Has the patient had, or not had, syphilis before? Does he present or not some other symptoms of syphilis?

2. Examination of the constitution. This is the sign *par excellence*—the medical criterium to consult.

Most frequently, indeed, tubercular granulations are produced in subjects already phthisical, who have pulmonary disease, or laryngeal phthisis. In this case the diagnosis of the pulmonary or laryngeal disease is the diagnosis of the tongue disease.

Sometimes, it is true, but more rarely, the lesions are produced as precursors of consumption; but then, if the lung be not tubercular, the individual is so already in the face. He has a tubercular constitution; he has the air and aspect of the tubercular; he has the constitution of tuberculosis, and above all, its antecedents.

And if, which is impossible, this criterium were wanting, the eminently obstinate character and incurability of the glossitis would serve itself to fix the diagnosis. Ulcerating syphilitic affections, in fact, generally are easily cured by the influence of specifics; tubercular glossitis is never cured, and resists all local and general modifiers.

4. *Cancroid*.—Cancroid comes last of all, and requires more than any other lesion to be differentiated from syphilis of the tongue.

What practical interest attaches to the differential diagnosis of cancrroid and ulcerating syphilis of the tongue, I could, if you did not already know it, make you understand in a word, by mentioning this: that on more than one occasion tongues affected with pretended cancrroids have been removed, which were nothing more than gummy tumours, and in which case iodine should have replaced the bistoury; that more than once iodide of potassium has cured lingual lesions reputedly cancerous, and which were, in reality, only gummy tumours.

Of this there are two examples.

A patient, cited by Lallemand, presented a tumour of the tongue, of an aspect such that it had been diagnosed cancer, and very fortunately considered not fit for operation. In despair of the cause, and to administer something, antivenereal remedies were given, and the patient was cured.

Here is another similar observation, communicated by M. Cloquet to M. le Dr. G. Lagneau, and related by the latter in a very interesting memoir on the subject which occupies us. This is concerning a patient who was affected with four gummy tumours of the tongue, each of the volume of a little nut. Under the influence of these lesions, the origin of which went back eighteen months, the tongue had assumed a monstrous development, so that it had been forced from the mouth, and descended to three inches beneath the level of the chin. The patient could not speak in an intelligible way; he breathed and swallowed only with difficulty, and was inundated with a very abundant flow of saliva; so that several physicians had considered the disease as cancerous in character. Sent for in consultation to this patient, M. Cloquet recognised or suspected a syphilitic lesion, and prescribed the bichloride of mercury. Fifteen days later such an amelioration took place that the tongue was already below the lip, in eight or ten months afterwards the larynx was again in its place, and in twenty-eight months the cure was complete.

It is useless to insist, after such cases, on the importance of the differential diagnosis which we have to make. Let us, then, carefully examine on what bases the differential diagnosis of these two lesions reposes.

It is scarcely, except at the period of ulceration, that cancer can be confounded with gummy tumour, for before this time the aspect, form, and hardness of the tumour do not admit of an error being made. Once the ulceration is produced, it is another affair. Doubt is permissible, if not always, at least in certain cases. Let us see by what signs the confusion may be avoided.

We shall have, firstly, certain diagnostic presumptions, derived from the age of the patient, his hereditary predisposition, &c., and the seat of the tumour.

Cancer is, indeed, especially a disease of ripe age, and yet more of advanced age; its maximum frequency is

between 50 and 70 (Auger). Syphilitic lesions are seen generally at a less advanced age.

Cancer is often hereditary, and that in the proportion of one in seven. Nothing like this is seen in syphilitic lesions.

Lastly, a final character may be derived from the seat of the lesion. Cancer affects especially the point and edges of the tongue; syphilitic lesions are produced in preference in the middle portions.

But these are, as you have already understood, only presumptions, and rather hypothetical ones, rather subject to caution to found on them any serious diagnosis.

Far more important are the clinical signs, commencing by the best of all.

The *cancroid* is a tumour; this tumour may be ulcerated on the surface, but is always a tumour. Even in its period of eating away, when the ulcer is depressed from loss of its own substance, the cancer has still a base, like a tumour, and a base quite otherwise appreciable, and far more clearly indurated than the base of ulcerated syphilitic tongue lesions.

The ulcerating gummy tumour, again, is an ulceration without tumour of true nature. It may, indeed, rest on hard tissues, or an indurated base, indurated either by gummy infiltration or inflammatory new growth; but this base does not form a tumour properly so-called, a tumour so distinct as is the tumour of *cancroid*. Do we say that the engorged base of a varicose ulcer forms a tumour beneath this ulcer?

This is the first sign, and also the main sign on which instinctively and from experience we establish the differential diagnosis between the *cancroid* and the gummy ulcer. Let us add to this sign some other consideration of a less important order—thus:

The *cancroid* is unilateral, azygos, according to the expression of M. Ricord, whilst gummy ulcers are sometimes multiple.

The *cancroid* is more fungous, more bleeding than the gummy ulcer—less grey, less full of shreds, not sharply cut, less emptied out, and more granulating than the gummy ulcer; it secretes a more foetid ichor, and determines more marked local troubles, and especially more pain.

Lastly, a final and excellent differential sign, of which, unfortunately, we cannot always avail ourselves, is the state of the glands. At the commencement there is no glandular enlargement in either of these affections; at a little more advanced period the glands are pretty frequently enlarged in cancer, but remain stationary in the gummy tumour.

Such are the considerations on which the diagnosis of the *cancroid* and gummy tumour may be commenced, without, of course, speaking of commemoratives, or actual syphilitic accidents, &c.—considerations on which I have dilated apropos of the general question as to the tertiary lesions of syphilis, and over which I do not need to return.

Finally, in case of doubt, before deciding to take to the bistoury, there is an evident necessity to have recourse to what has been termed the *therapeutic test*. If there be doubt, and even if the point be not absolutely demonstrated, and that without possible contradiction, the formal indication, which is absolute, is to treat by specifics before operating. To justify this precept, remember the case of Cloquet, the case of Lallemand, to which so many more might be added.

distinctly by the pathological appearances discovered *post mortem*. There is that most widely known when you have septic emboli, and scattered abscesses caused by them, and perhaps otherwise also. There is that where you have inflammation of the peritoneum and other serous cavities, including the synovial and endocardial. There is that where the mucous membranes are chiefly affected—the muco-enteritic. And, lastly, there is that where the only results found after death are—alteration of the blood, enlargement of the spleen, the liver, and degenerations of their most important tissues, with similar degenerations in other organs. It is this last which, often rapidly fatal, was described by Helm, and is now often called acute septicæmia. These are the cases which the superficial pathology of our young days described as having no post-mortem appearances at all. An autopsy in those days was made by any practitioner, occupied only a few minutes, and the observations made were of corresponding value. Now an autopsy is a matter understood to demand the labour for a long time, often for hours or even days, of an expert. On these fruitless autopsies where no appearances were discovered and none supposed to be discoverable, was founded, as you will remember, an argument supposed to be of clenching potency in favour of the essential fever character of the disease. But I confess I have never been able to discover either the logic or the power of the demonstration.

Easily getting rid of this old argument, we come sharply in contact with a new difficulty. When I say that Weber, Bergmann, Billroth, Hüter, and Verneuil support the doctrine, that Olshausen holds it an open question, and that Sanderson, in his essay on the *Infective Product of Inflammation*, demonstrates truths which seem at least to favour its pretensions, you will see that the matter has already occupied great minds. The doctrine is antithetical to the essential fever notion, for it states that pyæmia, or so-called puerperal fever, does not essentially differ from ordinary inflammatory fever, such as is called healthy, except in degree, and that the modes of induction of these feverish states are identical, or nearly so. From the slightest pyrogenous effect or merest evidence of morbidity, as discovered by the thermometer, up to the most rapid of Helm's cases of acute septicæmia, we have one disease in different degrees or forms, all depending on a chemical poison of Schmiedeberg and Panum, or on the bacterium of Mayrhofer, of Lister, of Klebs, of Waldeyer, of Heiberg, and of Orth, whether this bacterium be the poison, or only its carrier. That there are weighty reasons for entertaining this view must be admitted, and among them not the least is the wonderful results of the antiseptic system of treatment, as not only preventing pyæmia, but as preventing ordinary inflammatory fever. But practitioners of my own age, or greater, will find it difficult to get rid of, or convert, the *prima facie* evidence in favour of the old views afforded by the great array of facts and ideas which forms the basis of our daily reasonings in the guidance of practice in healthy and unhealthy inflammations, and which furnish a set of arguments which have been well stated by a reviewer in a late number of our medical quarterly journal.

The disuse of the term puerperal fever, and the replacement of it by puerperal pyæmia, is a change which has already been carried out by many of our best obstetric authors. The old designation is so impregnated with erroneous and misleading theory, that it cannot, within a reasonable time, be purified, and will probably be most advantageously subjected to destructive cremation. Fordyce Barker, a recent American author of great intelligence, still upholds the old banner—"an essential fever peculiar to puerperal women, as much a distinct disease as typhus or typhoid." He well knows how pathologists believe they have torn this view into tatters, and he ought to have given us good evidence of its being reparable, if not actually rehabilitated, but he does not even attempt the difficult task. When we are asked for evidence as to the specific characters of typhus or typhoid, we can easily produce them, and defy the farther destruc-

#### ADDRESS IN OBSTETRIC MEDICINE.

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#### PUERPERAL PYÆMIA, ETC.

(Continued from page 157.)

Pyæmia occurs in several forms, which are characterised each by more or less peculiar symptoms, but most

tive analysis of these diseases. It would be a waste of time to go over the special history of the causes, progress, and results of these diseases. They are well known, clear, and convincing to all. For puerperal fever, we have no such characters—no such evidence. All the evidence brings the disease into the closest alliance or identity with surgical pyæmia. The grand modern history of pyæmia is, in fact, at every step of its progress, the history of the elucidation of puerperal pyæmia, or of so-called childbed or puerperal fever.

One error is sure to bring another in its train; and so we have the widely prevalent belief that this disease is like cholera, or small-pox, or typhus, in occurring sporadically, but chiefly epidemically. Here it must be observed that many authors use the word epidemic carelessly, or as synonymous with endemic; a common error which should never be committed. But, knowing this, we find them almost universally believing in real epidemics of puerperal fever, describing them as sweeping over a country or devastating a continent. It is well known, and indeed needs no further proof, that the disease has often the appearance of being endemic in an hospital, that it attaches itself to and follows certain individuals in their practices; but have not been able to find anything worthy of the name of evidence to prove its epidemic prevalence at any time or in any large district. You are all, no doubt, familiar with the long descriptions and marvellous statistical compilations adduced as evidence of this doctrine by our best writers, especially by medical historians, among whom Hirsch is pre-eminent. But when these statistics are subjected to scrutiny, they are all found wanting, as may be made plain by one example, and the examples are all from old times. We have few epidemics described in recent times, and these few do not produce respect for the doctrine implied in their description. Yet, though there are few descriptions now, there is still everywhere the erroneous belief. Epidemics are described as having occurred in Edinburgh in 1772, 1814, 1825, 1833. But it is mere assertion. There is not a tittle of proof that the disease was not as prevalent in every year as in the years of the so-called epidemics. When a physician, struck with awe by a few cases, writes a description of them, down it goes in the statistical tables as an epidemic; and the year of it is not always that of the cases, but sometimes that of the publication of the pamphlet or book. When the horrid mortality rises in an hospital, from overcrowding or other causes, down it goes again as an epidemic; and with this supply of burlesque evidence the manufacture of epidemics never ceases. Registration arrangements are not required to show the epidemic character of cholera, or of small-pox, or of other fevers; and, when we do get the valued registration statistics, we get the proof in proper form. But if puerperal fever is to be shown to be ever epidemic, it must be by regular modern registration statistics. The prevalence of it is happily never very great, comparatively speaking, and, again, it is never extensively or long absent; and, when we appeal to such statistics of metria as are accessible, we do not get proof of epidemic character. We find it always present, in every country, in every community. It is easy to get proof of the epidemic characters of fevers, but not of puerperal fever. He who studies this point will find metria to vary in its ravages as pneumonia does; he will find cholera or scarlatina varying in their ravages according to a quite different law.

As the disease is erroneously believed to be a fever and to occur in epidemics, so we have a corresponding erroneous theory of its origin or causation. Many authors delight to speak of cosmic or of telluric influences or of miasma as producing the disease, and such subjects are favourites with a certain class of minds which find it most agreeable to enter at great length upon those topics of which they know very little or even nothing. For such there should be a puerperal Zadkiel. It is very difficult to find any evidence for the existence of a miasma even in the air of a pestilential hospital, for puerperal pyæmia prevails in such a manner as is scarcely reconcilable with the miasma

hypothesis, and, on the whole, easily reconcilable with more or less direct communication with diseased neighbours, as Veit has ably shown. Among the circumstances of prevalence to which I allude are the comparative immunity of women brought into the hospital already delivered, the special liability of primiparae, the special liability of those who have tedious and difficult labours.

Again, as the disease is believed to be a real or essential fever, so, of course, it is believed to be contagious and infectious, or both—whatever these terms may mean. In recent times, this mode of communication has come to be regarded as so certain and yet so subtle and mysterious that many teachers and a great body of practitioners have been terrified out of their senses by it. One cries out that the obstetrician must not wear gloves, and it would be just as rational to say he must not wear clothes. Perhaps he might be permitted to paint and go about his practice as the ancient Britons fought. Many say that the practitioner who has a case of puerperal fever must give up his practice and go through various processes, and not return to his avocations for a period varying from a fortnight to six weeks. Others, on this point speaking logically, go further, and say the accoucheur should give up his practice, not only if he has on hand a case of puerperal, but of many other contagious diseases, such as scarlet fever, typhus, small-pox, measles, erysipelas, fœtid abscesses, &c. Of the many who propound or teach such doctrines, I have never known one who practised them, and I cannot say their feelings on reflection are to be envied. If such are good doctrines, they are, of course, equally good for physicians and surgeons as for obstetricians, but the poor obstetrician is laden with restrictive burdens which his medical and surgical brethren do not recognise or touch with one of their fingers. Yet, the old proverb tells here, that what is sauce for the goose is sauce for the gander, and accordingly physicians and surgeons must follow the rules they inculcate on the accoucheur. In truth, these extreme practical doctrines of contagion are absurd, for they render all practice, whether medical, surgical, or obstetrical, an impossibility, or at least reduce the number of patients cared for at a time to one, which amounts to the same thing. In this matter much error and evil are, I believe, introduced by confusing the duties of the practitioner with those of the nurse, two quite different and almost, if not altogether, incompatible occupations. A practitioner must always, in such circumstances as we are now considering, carefully eschew undertaking the functions of a nurse, for if he does, he must submit himself to the code of rules that regulates the conduct of nurses. If, avoiding a nurse's duty, a medical man of any kind cannot make himself medically clean in hands and person and dress, all kinds of medical practice as at present carried on are impossible with due regard to the safety of patients. Everyone who knows the safety of actual medical practice must see that such views of contagion end in absurdity. But it is not, despite all this, to be supposed that practitioners are not bound by the most solemn considerations to take most scrupulous care against being disseminators of disease; and there is no disease with which they deal where such care is more imperative on them than puerperal pyæmia. The puerperal woman presents in her contused, lacerated, and inevitably wounded passage the most favourable nidus for the reception of morbid material; and the woman suffering from puerperal pyæmia in any of its forms, and patients suffering from some of the allied diseases, present this morbid material in its subtlest and most potent essence. A well-demonstrated communicability arises from this source. No other has been demonstrated, but it is possible that in an ill managed hospital there may be some other. For the existence of another source, several of the best recent authors offer slight evidence; but, on the other hand, its existence is rendered very doubtful by the alleged absence of pyæmia in those surgical hospitals or parts of hospitals where the antiseptic treatment of Lister is properly carried out.

Another result of this extravagant and superstitious

dread of contagion is what I deliberately call the slandering of our noblest and most useful institutions—hospitals—and in that word I include all hospitals for the sick, not those for lying-in women only. Although it is against the latter that most of the foolish talk is directed, it is vain to suppose that they alone suffer. If one kind of infirmary is indefensible, so are all kinds; they must stand or fall together. The laws of pathology are not varied in nature with a view to the misfortunes specially of lying-in women. No doubt the slandering is done with an excellent intention, under a good motive, but it is none the less what it is called, censuring injuriously and falsely, or without sufficient evidence. There have been, and there may be now, maternities which are justly calumniated as injurious, but that fact is no excuse for calumniating all. After abundant evidence has been adduced to show the directly and indirectly erroneous character of Le Fort's statement, that while the mortality of hospitals is 1 in 29, that in private practice is 1 in 212, a recent lecturer on pyæmia repeats it as if it were uncontested, and weakly appeals to authority on a point capable of scientific demonstration. We have reliable and large statistics to show what a moderately good hospital is, and we have no thoroughly reliable evidence that better results are anywhere obtained, whether within an hospital or in private practice. Among the good, I place the Rotunda of Dublin, the reports of whose recent condition you may have seen from the pen of Dr. George Johnston, its present master. So great is this superstitious dread of hospitals and reliance on imperfect statistics, that one eminent author believes he has made out that amputation of the forearm performed upon a poor man in his cottage is thirty times less fatal than if it were performed in an hospital. The paradox is not to be received because its basis is inadequate; and, considering whence come most of our hospital patients, I wish we had from this author some theory of the healing virtues of the concentrated and various filth of a highland bothy or cottage, or of a den in the Edinburgh Cowgate, or the London Ratcliffe Highway, accompanied, as it often is, by every abomination physical and moral.

As hospitals are in this facile manner made out to be bad, so of course, large hospitals are worse, and statistics are again appealed to in support of this view. Were it not that a recent lecturer on pyæmia repeats this statement, I would not here allude to it, for it has been shown to be groundless by demonstrations as good as can well be imagined, but which seem not to have reached the eyes or mind of this eminent surgeon. Siebold believed that lying-in hospitals were so useful that shutting them up would bring far more serious evils than an occasional outbreak of puerperal fever. Whatever soundness there may be in Siebold's judgment, I prefer, with Steele, to adopt a different view of maternities, and to look forward to the time when there will be no endemics of puerperal pyæmia, but only sporadic, or what are called auto-genetic cases.

Other errors connected with the old and still prevalent opinions regarding puerperal fever, though worthy of comment, must be passed over; but one, from its importance, demands notice. It is, that this disease is a kind of cholera, or a kind of typhus, or a kind of scarlatina, or owns the same or similar causes. In this country it is almost exclusively the identity with scarlatina that has found supporters. But at home and abroad the doctrine has, in some form or other, been extensively entertained. It is to be carefully distinguished from that reasonable view of Pouteau, Alison, Sidney, Nunneley, and Tilbury Fox, that the disease has close alliance with erysipelas, and, I might add, with the diffuse information of Duncan, a view which has been partially adopted and signally illustrated by Virchow in his now celebrated paper on "Diffuse Puerperal Parametritis." Scarlatina is a source of terrible danger to lying-in women, and scarlatinoid rashes are seen in some of the worst cases of septicæmia; and herein probably lies the attractiveness of the theory. But, unluckily for its supporters, and especially for the

most recent, the theory has been disposed of by the researches of Hirsch and of Veit, who, by statistics of the comparative prevalence of scarlatina and of puerperal fever at different times and at the same time, have shown that there is no relation between the two. This argument against the theory is far stronger than any in favour of it, and must meantime be held as conclusive. It had been urged by these authors and by Spæth before the *Lancet* did the good service of bringing Farr into the field on the same side.

Every change in doctrine or in name does not necessarily indicate progress; often, indeed, it indicates retrogress. Such unfortunate changes arise more frequently from error in philosophising than from error in observing. Among such, there is one in the history of our present subject. It has by some pathologists been proposed, not only to continue the name puerperal fever with all its adherent errors, but to go far towards introducing like errors into surgery by describing the allied diseases there as surgical fever. Had there not been the erroneous use of the word fever in childbed diseases, there would undoubtedly have been one hindrance less of the general acceptance of modern views. Progress in surgical pathology runs no risk of being now impeded by the false name, surgical fever; and its adoption will certainly not do any good. By adopting, instead of puerperal or childbed fever, the term puerperal pyæmia or some similar one, we, by the mere use of words, enforce the argument for a great medical generalisation, making the gains of surgical and obstetrical science mutually beneficial.

It must not be supposed that there is in the mere change of a name any real progress, however much such change may foster right views. Nor is this change of name to be held as even tantamount to a change of theory, from a false to a true one. The present state of our knowledge is not such as to justify a sense of great security in any theory. Yet, theories are very attractive, may be useful, and the tendency to frame them, whether prematurely or not, is in vain repressed. All the more ought we to maintain our minds in an unprejudiced attitude, ready to throw away the worse and cling to the better. Willis, who introduced the name febris puerperarum two hundred years ago, held that it was the result of sulphurous particles and fermentation. This has a faint resemblance to the new pyæmic theory, with its bacteria or micrococci, its septic and infective materials; but Willis's theory and every recent modification of it is a mere shadow compared with the pyæmic theory. The former can scarcely be said to explain or embrace any of the chief details of the subject, while the latter explains and embraces a vast number, is incompatible with none, and is the most promising road to still further explanation and generalisation. It is the last philosophic production of a vast array of modern observations and inquiries. It helps to increase the distance between us and the mere philosophisers, and to join us with the advanced guard of modern medical investigators, whose weapons are observation and experiment, not learned talk, however clever. When the physicist finds a theory of light propounded by the greatest of his kind to be inconsistent with his more advanced researches, he not only adopts a new one, but deserts the old nomenclature connected with the misleading hypothesis.

Many researches of different kinds have contributed, and are contributing, to converge scientific light on this greatest of practical, obstetrical subject; but scarcely one of them can be regarded as being even yet completed, while some are only well begun. In drawing to a conclusion, it will be well to take a glance at these various investigations, with which we may class some more general discussions, such as that of Spiegelberg, on this topic.

Van Swieten, Willis, and many old authors on puerperal fever, regarded it as a wound fever, and Eisenmann's well-known work on the subject, published in 1837, is called "Wound Fever and Childbed Fever." The wound which these, and even most recent authors, have in view,

is that produced by the separation of the placenta; but it is now well known, and has been often found clinically exemplified, that the disease may begin in a contusion or laceration of any part of the genital canal. Many of you have recognised the beginning of a fatal disease in a diphtheritic state of a slight recent perineal laceration, with surrounding redness and boggy swelling. I have already alluded to the recent advances of our knowledge of the anatomy of the placental wound, but already we know where to look for much more light on this subject. The anatomy of the lymphatics, to which recently Recklinghausen, Klein, Thin, and many others, have contributed, is not yet completed for the uterus. We all know the fine-looking and distinct, but very unsatisfactory drawings of uterine lymphatics by Moreau; but we do not yet really know their actual anatomy, though very much progress has been made by the anatomical investigations of Lindgren, Fridolin, and especially of Leopold. The completion of this work will be an addition to the theory of puerperal pyæmia.

Following the as yet indefinite notions of a wound-fever, came a further true advance from Boyer, Legallois, Cruveilhier, Tonellé, Dugés, and Simpson, who combined to demonstrate the identity of what would now be called the rough morbid anatomy of patients dying after surgical and after obstetrical wounds.

Then came a grand piece of progress, consisting in the discovery and descriptions of phlebitis and lymphangitis, which we owe to Dance, Duplay, Cruveilhier, Robert Lee, Hecker, and Buhl.

We now reach our own times, and have a still grander progress of our knowledge to record, in the discovery of thrombosis and embolism by Virchow, Kirkes, Cohnheim, Buhl, and many others.

After these come researches whose bearings on this subject are certainly very important, but which are, in many respects, as yet immature and incomplete. We allude to the investigations as to the potency of septic poisons, connected with the names of Davaine, Panum, Kehrer, Thin, and many others; the great and actively progressing researches as to the production, diffusion, and influence of bacteria of various kinds, by Lister, Klebs, Waldeyer, Sanderson, Billroth, Winge, Heiberg, Orth, and many others; the new researches of Sanderson on the infective product of all acute suppurative inflammations; researches also into the distinctive characters of the noxious or septic, and the innocuous bacteria.

Besides all these, many valuable results have been elicited from the analysis of experience in hospital and in private practice. In this way the influence of age has been ascertained, and especially of immaturity and of advanced life; so also the baneful influence of primiparity and of excessive childbearing, and of twin-bearing; so also the baneful influence of severe and of complicated labour; so also the bearings of the duration of labour; so also the influence of earliness or lateness of attack after delivery; so also the baneful influence of inclemency of season; so also the dangers attending hospitals and the dangers of communications between the sick and the healthy.

But all of these researches, whether finished or still imperfect, do not, when combined, complete our modern view of this great subject. It is a subject in practical medicine, and we are practitioners. The great object of our work is to prevent or to remove the disease in our patients, and we have to inquire what fruits our knowledge produces for the comfort or healing of the sick.

Many remedies for puerperal pyæmia have been proposed, and their successful application loudly proclaimed and widely believed. Doucet was even rewarded by the French Government for his discovery of the curability of this disease by ipecacuanha. In our own day new cures do not fail to make their appearance, and the advanced knowledge of our times would lead us to expect that they should be more rational, as the phrase is. But who is there of weight in the profession, now, who believes in any cure or in any system of specific treatment? All have

been found wanting. Yet the wise physician of this formidable disease does not despair of guiding his patient through it, although he well knows its very dangerous character. Experience has shown him the utility of several means for relieving sufferings; and the favourable progress of a case may be encouraged, though not secured, by those invaluable directions which he may give as to diet and stimulants, as well as to more direct medicinal treatment of the genital passage, of the skin, of the bowels, and of the system generally.

But in this disease the physician has long been saying, not that prevention is better than cure, but that prophylaxis or prevention is to be chiefly looked after, and not cure. Great credit is due to Semmelweis for the good he has done, especially to hospital patients, by his enlightened zeal in this cause; but the records of hospital practice sufficiently show that much more has yet to be accomplished. Prophylaxis is still farther to be carried out by attention to stop injurious communication between the sick and healthy, by disinfection, and by architectural arrangement—subjects which are all at present receiving much attention from the profession.

In the course of my remarks I have repeatedly referred to scientific researches, as to the poison producing pyæmia, and as to the effects of its concentration, and as to the connection of this poison with the presence and diffusion of bacteria. These researches have been carried on mostly by observations and experiments on the lower animals, and of their very great value there can be but one opinion. But there is a variety of circumstances which seem to indicate that the lower animals are not subject to exactly the same laws in these matters as man is, and certainly there must be great caution exercised in arguing in human pathology from the analogy of the lower animals. The most important of the researches referred to, however,—those of Lister and his followers—have been mainly carried out in man, and consist, in a great degree, in the attainment of results in practice equally wonderful and valuable—results that can, so far as we at present know, be attained in no other way. These results go far to justify the belief that pyæmia is a septic disease, and that puerperal pyæmia may be almost, if not altogether, prevented by the application to delivery of a practice based on antiseptic principles. We know how much has already been, and is, I am happy to say, daily done with success in this direction. But the rules of Semmelweis, or any other washing of the hands, however carefully conducted, do not constitute treatment according to the manner of Lister. Such imperfect antiseptic precautions, by use of antiseptic gauze and otherwise, I have used with apparent advantage; but we have yet a long way to go, in order to secure complete antiseptic delivery and subsequent treatment. To reach this desirable object, the efforts of several good minds are, I know, directed both at home and abroad; and some recent unpublished cases of successful antiseptic treatment of wounds of the penis, where periodical discharges of urine have to be permitted, supply a sketch in miniature of plans that might be applied to ordinary confinements. To say more about them I have no right; but I conclude by calling upon you to give your best aid to forward the grand cause of the increased safety of lying-in women.

## MEDICAL SCIENCE AND MEDICAL TEACHING.

By GEORGE BARRACLOUGH, M.A. (Cantab.), M.R.C.S.

(Continued from page 131.)

If it be true that in the scientific works of a great physicist like Faraday not much of the personal processes of thought by which he arrived at his discoveries is manifested, it is fortunate for us that the history of these processes has been preserved for us elsewhere. A recollection occurs to me of having seen a letter of Faraday's in which he himself describes spontaneously the intellectual processes by which



he arrived at his discoveries. I cannot lay my hand on this letter at the present moment; but in illustration of the subject, I find something in Tyndall's "Faraday as a Discoverer" quite as much to the purpose. The narrative runs thus: "Theoretic ideas were the very sap of his intellect—the source from which all his strength as an experimenter was derived. While once sauntering with him through the Crystal Palace, at Sydenham, I asked him what directed his attention to the magnetization of light. It was his theoretic notions. He had certain views regarding the unity and convertibility of natural forces; certain ideas regarding the vibrations of light and their relations to the lines of magnetic force; these views and ideas drove him to investigation. And so it must always be: the great experimentalist must ever be the habitual theorist, whether or not he gives to his theories formal enunciation. . . . Faraday himself, in fact, was always 'guessing by hypothesis,' and making theoretic divination the stepping stone to his experimental results." (Tyndall's "Life," pp. 97 and 149). Dr. Wilks is not very fortunate in his choice of Faraday as an example in support of his doctrines. It is quite clear, if the above citation is to be trusted, that the methods which Faraday adopted in his researches were the very antithesis of those which Dr. Wilks deems "truly scientific." Faraday, indeed, made all his discoveries by those theoretical methods and that sort of personality of thought which are impugned by Dr. Wilks. Had not Faraday, consciously or unconsciously, pursued such methods, it is quite certain we should have heard neither of him nor of his discoveries. What a loss it would have been to us had not Faraday either directly or indirectly revealed the personal mechanism of thought, in the formation of theory, which led up to his discoveries, and of which these were merely the result, or final expression. If the revelation of this had not been preserved for us in the way it has, rather than not to have had it at all, would it not have been to our advantage if Faraday had mingled the personal mechanism of thought which led up to his discoveries, with the formal enunciation of them? And would his scientific doctrines have been less true on account of the fuller view of his personality thus afforded us? According to Dr. Wilks, this would have been the case.

Historically, it is simply incorrect to affirm that "all truly scientific theories are completely dissociated from the mind of him who has framed them." Whether they can be so dissociated is one thing; whether they are (*i.e.*, have been) so dissociated in all instances, is a question of history; and history testifies to no such thing. So far as the mere power of complete dissociation goes, if it exists, it holds equally true, as a matter of form, for false as for true theory. If true theory can be *completely* dissociated from personality, there is nothing to show that the same cannot happen with untrue theory. Such being the case, where is the value of this doctrine as a criterion of what is "truly scientific?" Are we, for instance, to accept as true all the doctrines in Plato's dialogues because Plato himself so seldom appears directly in them; or all the conclusions in the treatises of Spinoza because—though still *his*—he invested his thoughts, so far as possible, with an eminently mathematical and impersonal form? Actuated by this principle, we shall find ourselves embracing the most heterogeneous doctrines.

All forms or scientific principles are, in their expression, nothing more than the external signs or symbols of that growth of thought or evolution of soul which constitutes knowledge in the individual mind. Simply in their formal expressions they are lifeless—are not knowledge—are a mere form of words. And hence they are not most fruitful, *i.e.*, most productive of that growth in the minds of men which constitutes knowledge, when, in the language of Bacon, they are exhibited with some of the earth about them. It is this latter process which gives us that helpful glimpse which is such a precious aid towards the evolution, in our own minds or personalities, of the knowledge or sciential soul-growth, of which principles, as expressed in words, are the mere external symbols. Without this aid

the bare enunciation of a principle would indeed be of little use to us unless we were ourselves already largely pregnant with the subject; and according to the degree of pregnancy do we require more or less of the earth. I say, in default of such assistance as this, we might, in some cases, beat about the ground for ever, without arriving at that knowledge of which the principle, as nakedly stated, is the hieroglyph. And this really is precisely the state of the ignorant in respect to principles. To such persons they are wholly inert and meaningless. A principle as nakedly stated in words has nothing inherent in itself by which it can convey knowledge to the unaided or unpregnant mind. The higher the law and the more abstruse the principle, the more numerous must be the intellectual processes which have preceded them, in the case of every individual mind which strives to apprehend them. There is no royal road to knowledge, even by way of principle. In one aspect of it, the growth of knowledge may be described as the advance towards a higher sciential selfhood. And as we cannot transcend personality, all human knowledge must be personal, not impersonal. We may make the formal or abstract principle, as symbolised by vocal or written signs, as impersonal as art will allow; but if this is to be vivified or made into real knowledge, it can only be done by unfolding those intellectual processes which constitute the knowledge of which the mere formal or verbal enunciation is the expression; and only by a metaphor can knowledge be said to reside in this latter. As regards knowledge, the possible fruitfulness of a principle resides not in it, but in ourselves. Otherwise, the bare enunciation of the most abstruse principle would convey as much knowledge, at first hearing, to the perfectly ignorant, as to the instructed, which we know is not the case. "'Tis the taught already that profit by teaching." And we know how Socrates described himself as a midwife. In face of the uncertain result which attends so many of the Platonic discussions, we must not suppose that the Platonic dialogue proposed doubt, or mere skepsis as an end. This was only a means to an end; and that end was the exercising of the mind not only of the *idola specūs*, but of all other phantoms, a getting rid of what was *ιδωρικόν* (in its lower sense), a purging of the mind of the wrong sort of egotism or personality, and a preparation of it for the higher sort; the gradual infusion of a reverential sense of the difficulty and infinite subtlety manifested in the works of the Demiurgus. In this way the ground was effectually cleared of the rankest weed—the conceit of knowledge without the reality. The mind thus ceasing to be merely lay, was in the state to become cleric or sciential in respect to all knowledges—was in a position to evolve knowledge according to the measure of its individual capacity, or develop the highest sciential selfhood of which it might be capable. This was the regeneration, or second birth, the palingenesis which enabled the subject of it to live in the world of reality as contrasted with the phantom world of *idola* or idolatry. And here also that may be affirmed which was said in another and more solemn reference: No man, unless he be born again, can enter into the kingdom of science. "Je mourrai seul" was a saying of Pascal's: he might have added, "We must live alone." No mere contemplation of the exploits of Milo will make our own muscles grow. If growth is what we want, there is only one way to obtain it: we must strip and go into the arena—not standing by and refusing to grip—not fearing a fall, nor that swinging hype which we are sure to get. The kingdom of knowledge suffers violence, and in respect to it we must all be agonistæ. This is true of all worlds, whether physical, intellectual, or spiritual. Let us not, then, give ourselves the airs of grown-up athletes when we are only children playing with the hem of our mother's garment.

As with his conceptions of nature and disease, so it is evident that, in the paragraph I am criticising, Dr. Wilks falls into his error respecting the impersonality of knowledge by conceiving of knowledge as an externally absolute and objective entity, independent both of man and of the Demiurgus. Viewed in relation to perfectly absolut



knowledge, as inferred of the Demiurgus, our knowledge, of course, is relative in reference to this. Apart from this reference, our knowledge is unrelative, and has, so to say, a sort of imperfect absoluteness. But, then, to objectively realise this last conception of knowledge, and represent actual human knowledge as relative to it, is merely to set up an eidolon or phantom which can only lead to that confusion which I have criticised all along. Discontent with the personality of human knowledge has led many, as in the East, to take refuge in the doctrine of Absorption, and not a few—as in Germany—to flee to a kindred doctrine—viz., the Intuition of the Absolute. But such minds have always been profound enough to see the folly of such an eidolon as absolute knowledge independent both of man and the Demiurgus. It appears to be reserved chiefly for the positivist to embrace this phantom; and, yet, considering the hue and cry raised against metaphysical ideas, this is very remarkable indeed. Surely the positivist's creed should, like Cæsar's wife, be above suspicion.

When he writes, "I believe this to be a true canon of criticism," &c., it appears to escape Dr. Wilks' notice that he is "intimately associating himself with his theory." Is his theory, for that reason, to be rejected? or is it to be rejected, independently of any association, solely if found to evince wrong thought, wrong reason?

As the abuse of theory has led Dr. Wilks to a most unphilosophical depreciation of its use as an instrument of scientific progress, so (in theory at least) his just abhorrence of an egotism, vain, obtrusive, and shallow, has led him to erect into a canon of criticism what, in the unqualified manner he has expressed it, is absolutely false and untenable, and, besides, is contradicted by the whole history of the origin and progress of science.

## A Course of Lectures

ON THE

### NATURE AND TREATMENT OF DEFORMITIES OF THE HUMAN BODY,

DELIVERED IN THE MEATH HOSPITAL, DUBLIN, BY  
LAMBERT H. ORMSBY,

Surgeon to the Hospital, and Demonstrator in the School of Surgery,  
Royal College of Surgeons in Ireland.

LECTURE V. (continued from page 397).

#### DEFORMITIES IN THE JOINTS OF THE LOWER EXTREMITIES.

##### *Chronic Rheumatic Arthritis of Hip-joint.*

THIS is a disease that produces at times great deformity in this joint. It has, as is well known, been first accurately described by two Irish surgeons, Mr. Robert Adams, of Dublin, and by the late Professor R. W. Smith; it was formerly called chronic rheumatism of the hip-joint, then morbus coxæ senilis; but the first-named seems to be the generally accepted term in the present day to denote this peculiar disease. Mr. Adams says, as to the cause of this chronic disease of the hip-joint he believes little is known. We have heard it frequently attributed to the effects of cold and wet, and an acute attack of rheumatic arthritis of the hip-joint produced by cold we can easily conceive may occasionally merge into the chronic affection we wish to describe. We have also reason to think that falls upon the greater trochanter have given rise to the first symptoms of this disease, but in many cases no satisfactory cause can be assigned by the patient for the origin of the affection.

*Symptoms.*—It generally occurs in those advanced in life, over 50, but may arise sooner—between the ages of 50 and 70, the most common. I have seen it more in men. One hip or both may be affected, also other joints in the body. It commences by the patient complaining of great stiffness in the joint, and about the greater tro-

chanter a dull boring pain is felt, extending down the front of thigh to knee; the stiffness is most felt in the morning; if the patient has walked much in the day the stiffness and pain are severe in the evening; there is a limitation in the range of motion, pain is felt when the patient places full weight on the affected joint, but when the surgeon presses the head of the bone up against the acetabulum no appreciable pain is experienced, the limb is shortened for about two or three inches, which varies in different subjects, but it is more apparent than real, owing to the obliquity of the pelvis, the nates is flat on the affected side, and the muscle appears wasted. When the joint is rotated, crepitus, owing to the grating, can be heard occasionally. A patient so suffering finds a great difficulty, in fact, in some cases it is impossible, to bend so much as to touch their toes; the attitude of standing and mode of locomotion are quite characteristic—they stand on the sound leg, slightly bent forwards in body, and rather spread the affected limb out, and with a slight bend at the knee, and the mode of locomotion is generally by the aid of two sticks, and is accomplished very slowly and interruptedly, the body slightly bent forwards at the hip. The anatomical or pathological appearance in the joint is as follows: The muscles are flabby and atrophied, the capsule is thickened, the synovial fluid is deficient, and if any of the sub-synovial tissue is present, it is very red and vascular, the cartilage of incrustation is removed from the bottom of the acetabulum and head of the bone, exhibiting at times a polished porcelaneous appearance, due to friction of the two bones against each other; the cotyloid ligament is frequently ossified; the acetabulum is deeper and larger, and forms a deeper cup than usual, with a level brim round the head of the bone, and narrowed so as to make it difficult to remove the head of the bone when required for examination after death; the Haversian gland is completely removed; the ligamentum teres is either ossified or entirely destroyed; the head of the femur is rounded, or depression, or bony ridges or nodules are seen on its surface; the neck is shortened. Cases of this disease have before now been mistaken for osseous tumour in intra-capsular fracture; these little bony deposits may be developed round the acetabulum and capsular ligament. I merely mention this disease on account of the deformity, in order that you might be aware of it and not mistake it for anything else. As regards the treatment it is at its best state but palliative; as yet no remedies are suggested for the purpose of curing it permanently, being a disease of advanced life and one of disorganisation and degeneration of the several tissues constituting the joint.

#### APPLICATION OF AUTOPLASTY BY THE FLAP METHOD FOR THE CURE OF SALIVARY FISTULA.

By J. MORGAN, F.R.C.S.I.,

Surgeon to Mercer's Hospital, Dublin, &c.

THE various modes of treatment suggested for this troublesome affection bespeak the difficulty which has been experienced in obtaining its cure; the affection is in itself so annoying and unpleasant, apart from the physiological loss to the animal economy of a secretion which is poured forth and lost in such quantity, that extreme measures have been resorted to so as to obtain a cure on any condition, even at the expense of the destruction of the gland itself. The actual and other cauteries, the seton, the refreshing and paring of the opening, the application of a suitable canula, and various other means have been used with varying success, and not unfrequently with vexation and disappointment both to patient and surgeon. I have found the flap autoplasmic method most successful, as illustrated by the following case:—

A child, 3 years of age, had suffered from abscess of cheek, followed by fistula of the parotid, just as the duct emerges from it. The opening was about the size of a

very large pin-hole, with puckered edges; the quantity of secretion poured out at times was incredible, and saturated the child's clothes, giving constant annoyance. The patient had become irritable and pallid, and suffering evidently from imperfect nutrition.

For some time I tried with perseverance the application of collodion, pressure, caustics, paring the edges and coapting them, but with imperfect results. I finally adopted the treatment by flap, as in the accompanying woodcut. A flap of skin was raised up from immediately



above the fistula, the parts below and in its vicinity being also denuded. I then drew down the flap over the fistula, and attached it by points of fine suture, and coated the whole over with flexible collodion, which was renewed from day to day when required. The result was most satisfactory. After eight days the collodion was discontinued, and a perfect cure was effected. The child's condition improved incredibly in a very few weeks. I applied a similar flap method in another case, with equally happy termination, and can fully recommend the method as applicable and successful.

## THE PHILOSOPHY OF VOICE.

By CHARLES LUNN.

(Continued from page 532.)

THERE only remains to be shown the best mode of self-study, and the influence of second causes upon pitch, so that the student may know what differences in hue to accept as true and what to reject as false; this because compass is as much a means of oratorical effect as it is of song. The best starting point for study is the note produced by sole approximation of cords, wind and reed synchronising, for in this the conditions both of elevation and depression of pitch are not involved; the note produced from the detached larynx by imitating the action of the adductor muscle would give the easiest sound in the living subject; this, in the average adult, male or female, is middle G, and in strange corroboration, we find G accepted long ago by priests as the most convenient note upon which to recite words. Having fixed the station note of equally sustained tone and of unflagging strength, all notes below are made by the larynx sinking and the attendant relaxation of the cords, from the detached larynx, male and female; Dr. Wyllie produced an octave below the station note; a like octave can be produced from the living subject. For the notes above G the larynx rises, and in rising causes increased tension of cords and a correspondent elevation of pitch. In this ascent the thyroid and cricoid rotate upon an eccentric centre, causing the planes of both false and true cords to become with each heightened tone more diagonal, thus, the sound travelling at a right angle to these planes finds its points of impact on the arch of the palate more and more forward with each ascending sound. A change in hue arising solely from change of direction has been a great source of error in our teachers, who, when speaking of "registers," have invariably been misled by this. The

object Nature evidently has in directing tone is that with equally developed force vocal utterance and articulate speech can be simultaneously used without one influencing for evil the other. This affords another scientific proof of the superiority of the fast dying old school which insisted upon a "forward production" as a basis for song. The reason why the larynx does not assume its right elevation for higher notes than the station note is because during our past years it has only been used *indirectly* to strengthen spoken words, so that the tendency of the larynx is to assume and retain the average altitude of language and to leave the production of all notes of greater height to volitional force acting through the thoracic muscles alone. Most untaught persons produce sounds above the station note by excess of blast, as seen by the rapid exhaustion of air, as heard by the point of impact being far back in the mouth, and as felt by the larynx being low, and finally corroborated by a feeling of personal fatigue when such notes are given forth. The corrective study is not, as alleged by Madame Seiler, "uttering *ah* in connection with consonants coming rapidly, as in *pfa, bfa*," for, as before remarked, a noise generated elsewhere cannot assist the organ of voice in directing its own tones, but the corrective study is, as the truer teaching of Garcia shows, having recourse to a steady spring from the larynx; this, by practice, induces in it a habit of rising until a position of highest elevation is fixed. It may be added, experience of years of voice-training shows that about C is found the best place for fixing the first central tone, and from this working downward to G inclusive. A curious phenomenon occurs about D or E: if the larynx ascends above this point the sound is propelled directly out of the mouth without any reflection on the arch—thus, a shout or noise results; doubtless this is the production spoken of by Dr. Mackenzie as of "too high a pitch." This, then, is the natural law; as soon as the sound obtains no reflection the scale must be continued by letting the larynx *sink* and going over the preceding five notes, G to D, with greater pressure, thus elevating them a fifth (full harmonics.) The descent of the larynx about high E can be felt with the finger; all these notes above D are producible in more ways than one, but all depend upon a correct emission of the tones below, so that the old teachers were right in insisting on fixing middle and low notes, although they did not know the reason why this should be done. In *soprani sfogati*, *tenori robusti*, and in all low voices of either sex, the notes above D are full harmonics produced by increased blast acting upon the cords fixed for a fifth below; but in "light" voices the notes above D are harmonics on a "node" from the cords fixed for an octave and sometimes for a twelfth below. By emitting a deadened high note (*falsetto*) and pressing above the thyroid with finger and thumb the sound will suddenly burst out into a bright clear tone; this is the production sought for by light singers. In the living subject there are three series of tones: one set produced by relaxation, one set by tension, one by reproduction; and the physical facts producing these three series are made manifest to man through created sound by three entirely natural but different hues. We know that air confined in spaces will strengthen and re-enforce sound (Mr. Sully in his admirable essays calls this "co-vibration"); in a human body there are three caverns filled with air that influence tone—the chest, the pharynx, and the mouth—and that cavern which of the three exercises the preponderating influence in tinging tone has hitherto been used to give a name to that series of sounds so tinged; thus we have one set of sounds termed "chest," and another "head." Moreover, with an increasing current of air from below, so sound will be carried by the current in one direction and impeded in a contrary one. Now, as all these second causes are absent during observations on the detached larynx, and as all remarks in medical works are drawn from this aspect of observance, we naturally find men of science writing of the "register" of voice (2 octaves),

while musicians approaching from a different point have confusedly brought in all second causes, and so speak of the "registers" of voice; hence the discrepancy in the statements of the two classes of men. The sudden change of hue in the female voice between middle F and G takes place just the same in the male voice, an octave lower, but owing to the difference in thoracic form the resonance continues in the chest of man where it ceases in that of woman; the ignorance of this physical fact is the cause of much false teaching, and has entirely blinded all previous writers.

It will be well here to clear away a false statement of the physiological action which takes place in producing "chest" notes. Herr Behnke, as reported by the *Lancet*, said at King's College: "The chest voice, which is the lowest, was said to consist of two portions, the lower and the upper. In singing in the lower register, the vocal cords are approximated for nearly the whole of their extent, but a small aperture remains between the arytenoid cartilages, and by the passage of air between them the cords are thrown into a full loose vibration." But Dr. Prosser James, in his articles on "Diseases of the Throat," (a) reproduced some observations on lost voice which strangely conflict with the foregoing; speaking of the patient, the article continues: "This (i.e., loss of voice) was at once explained by the laryngoscopic examination, which showed that there was not the slightest approximation of the vocal cords on attempting to speak, and the glottis remaining widely open, a large volume of air was required to be forced through it in order to produce even the faint whisper above mentioned. This demanded an effort of the expiratory muscles which was very fatiguing. The larynx appeared in every way healthy." And further on it stated that after an application of electricity "the voice had become very much louder, so that it could be heard the length of a large room, and the patient no longer complained of fatigue even after a long conversation. But at this point the improvement rested. On attempting phonation there still remained a *triangular opening in the glottis posteriorly, showing that the arytenoides failed to act.*" (The italics are mine.)

Here we see that what Herr Behnke advocated as a natural law Dr. Prosser James advanced to prove paralysis.

Further, it is assumed by voice-trainers that because there is a difference of hue between one series of sounds and another series of sounds that Nature causes a "break" in the voice, which break has to be "bridged over" (see any vocal tutor). But a difference does not necessarily involve a defect; therefore what is ignorantly termed a "break" may with better judgment be termed a "joint." A break is a bungle of ignorance, and the use of the term by the profession is giving to airy nothings a local habitation and a name to deceive the public and allure the unwary; the term itself is based on the assumption that Nature habitually creates man a cripple, and thus teachers complacently proceed to destroy a natural diversity in hue under a pretext of covering an imaginary gap. The hue with which each register is coloured, and which men try to annihilate, is given by Nature for a definite purpose, and is entirely right. This brings us to the science of aesthetics, which science is broadly divisible into that which stimulates, which may be called motion, and that which depresses, and which may be called repose. Power will excite, softness will tranquillise; so with height, and the opposite, depth; and with quickness, and its opposite, slowness.

<i>Motion.</i>	<i>Repose.</i>
Power.	Softness.
Height.	Depth.
Quickness.	Slowness.

(a) MEDICAL PRESS AND CIRCULAR.

The contradictories of any one of the above terms are found in the correlatives to the accompanying other two; thus, the stimulus derived from height can be counterbalanced by slowness and softness; but in the voice, wherever we require an outer manifestation of constant excitement, Nature has strengthened her æsthetic law by fixing a hue which expresses that mental state irrespective of the words associated therewith; and wherever we require an outer manifestation of constant repose Nature in like manner has fixed a corresponding hue. These are immutable results arising from an affinity between the receptive faculty and the intrinsic properties of the instrument. But where all kinds of expression are shown, that is, in the ordinary colloquial compass, the tone is a negative one. (a)

Voice-training was originally the work of past great singers, who taught by imitation; of late years this work has been added as an inferior adjunct to teaching the piano, the result being that we occasionally get a half-taught singer, who is carefully exhibited at great cost on festive occasions, and caused to sing to us, while we for the most part remain a nation of dumb mutes; thus, the public have got to look upon a beautiful voice as a freak of Nature, or a beautiful monstrosity, instead of being, as it is, a common gift of God to all, implanted in each of us for solace in sorrow, enjoyment in leisure, and spur in work. The difference, then, between the present articles and the faultful suppositions propagated in accepted vocal works is this: each of the existing works is started on the premiss that the writer is great and Nature poor and small, while these papers assume man's littleness and Nature's greatness, and assert that men are better employed in perceiving a true thing than they are in conceiving a false one: to this end the economy of Nature has been shown, the gradual decline of tone through lost relativity has been traced, together with the introduction of spurious vicarious force, and the association of nerve-currents by use of spoken words. The modes of restoration and re-adjustment by decomposition of nerve-currents and the severance of vocal tone from articulate speech have been pointed out, going back in all simplicity to first principles as shown in child-life; and, finally, the gradual development by steady right directed work has been enforced. We have seen how conflicting opinions have arisen, and how these and observations from different aspects can be explained, and, where each in its way correct, made to agree, and we have seen how science has been retarded by voice culture having got into the hands of a wrong set of men. Of course, a true teacher of music would see the immense advantage that must accrue to his profession if voice-trainers had a separate sphere of action, and could hand over their work, saying, "Here you have a perfect voice, implicitly obedient to the will of the possessor; it is developed to its uttermost, and refined to the greatest extent that work, aided by science, can attain. Now teach the possessor of such voice to use it with the consummate skill that you, as musician, know best how to impart, then we may by our friendly association of work, and in due time, produce a real artist—not a singer of the modern bastard school." But, instead of that, it is generally assumed that the most difficult branch of all musical training—that of guiding an invisible instrument—is quite an easy matter, requiring no power on the part of the teacher to command any "utterance of harmony" from it himself, nor any skill on his part! S'blood! are man's nerves and muscles easier to be played upon than tempered scales and ivory keys? It is not so, and only because custom sanctions the mode is the fallacy obscured, and the ignorance condoned—for Ignorance is the mother of stupidity, and Custom the father of fraud.

I cannot close these papers without publicly expressing

(a) Probably this physiologico-æsthetic fact, taken in connection with Dr. Wollaston's discovery of the *sursumus* of muscle, and the additions to this by Dr. Houghton, of Dublin, and Dr. Collingue, of Paris, may give the scientific basis for the solution of the much vexed question of "pitch." Hitherto the arguments of musicians have been confined to personal preference, bold assertions, and arbitrary coercion, and at such arguments scientific men can only smile.

my thanks to the Editor of the *MEDICAL PRESS AND CIRCULAR* for the kindness he has shown in allowing me, an outsider, the opportunity of expressing the results of my research in this much-neglected study of human voice; especially do I feel this kindness the more when I reflect that in consequence of my convictions I have been subjected both from the ignorant members of the musical profession and the Birmingham Press to a persecution which contrasts strangely with the generosity of a distant journalist: being so, it is natural that I should turn to a profession in which scientific research and self-abnegation have ever reigned supreme; and if by my writings I have added to the permanent store of human knowledge, I shall always feel deeply grateful to him who has permitted me herein to do so.

## Hospital Reports.

### CASHEL UNION HOSPITAL.

(Under the care of Dr. LAFFAN.)

OPHTHALMIC NOTES, BY MR. DWYER.

#### *Entropium.*

SEVERAL cases of entropium have been under treatment within a comparatively limited period. In some of these one lid only was affected; in others all four were involved. Some of the cases belonged to the acute, and others to the chronic form of the disease. The cornea were more or less injured in all. Dr. Laffan treated these cases by the removal of oval flaps of integument and muscle from the margins of the lids. Sutures were at the same time inserted into the sides of the incisions.

These, though they gave the patient additional pain, were found necessary. The results were in every case satisfactory. Dr. Laffan has had many of these cases under observation for a lengthened period, and the cures have continued perfect. The particular operation employed answered admirably in these cases; but a superiority over all others is not pretended for it in any case; while there are, of course, some to which it would be entirely inapplicable.

#### *Staphyloma.*

A GIRL, æt. 20, was admitted with complete and recent staphyloma, following extensive ulceration of the cornea. The mass projected a full inch behind the margins of the lids, was the cause of great deformity, and kept up a constant inflammatory condition of the conjunctiva. Although it seemed a case for the removal of the tumour, and the only question was the choice of operation, Dr. Laffan resolved to give a trial to a milder measure, and one which, if successful, would leave the minimum of deformity. He determined to subject the tumour to a combined process of pressure and paracentesis. A fine cataract-needle was accordingly inserted on each alternate day into the tumour, and the aqueous humour evacuated. Firm pressure was kept up in the intervals by means of pads. The result was entirely satisfactory. The cornea, or what remained of it, got time to consolidate, and all trace of the staphyloma disappeared. The minimum of deformity was realised, and even a certain amount of vision was obtained from a small bit of the cornea, which was unaffected by the inflammation.

#### *Cancer—Excision of Eyeball.*

J. W., a female, æt. 60, was admitted suffering from what appeared to be cancer of the eyeball. The local appearances corresponded to no described form of the disease. The organ was removed in the usual manner, and the parts soon healed. Secondary cancer, however, set in after a few weeks in the liver, and to this the patient succumbed.

A similar case, quoted from Laurence, is mentioned by McKenzie in his work on diseases of the eye.

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## The Medical Press and Circular.

"SALUS POPULI SUPREMA LEX."

WEDNESDAY, AUGUST 26, 1874.

### THE FINANCES OF THE MEDICAL COUNCIL.

AMONG the various questions suggested by the late proceedings of the General Medical Council recurs one that we have spoken of in other years—viz., is the Council worth its expense? It is to be remembered that the cost of this body is entirely defrayed by the profession. Its use is greater to the public than it is to us—in fact, it would be difficult to say what use it actually is to the profession. To revise the standard of education is to benefit the public. To keep a register of qualified men is for the public protection. The power of protecting us from quacks is so limited as to be practically useless. Still we have to pay all the expenses; we may well, therefore, keep an eye upon them: and to enable our readers to do this we propose to repeat here the facts recorded by the Finance Committee.

From their statement it seems that the income of the Council in 1873 was £768 16s. less than in the year 1872. This difference was, however, almost entirely due to the exceptionally large amount of fees received for registration by the several Branch Councils in 1872, and not to any special decrease in the income of the year 1873, which was not below the average. The balance in favour of income in 1872 was £2,260 3s. 7d., whilst in 1873 the balance amounted to only £212 17s. 6d. This difference is due to the fact of the Council having sat during only five days in 1872, whilst in 1873 the sittings of the Council extended to nine days. It may well be asked whether the work could not always be done in the shorter period. A sum of £598 10s. was expended in 1873 on account of the visitations of examinations. A further sum of £301 18s. has since been paid on account of these visitations, which will be included in next year's account, making the entire cost of the visitations £900 8s. With respect to estimate for the present year, the income will probably not be less than that of the preceding year, whilst the estimated expenditure has been necessarily increased to meet the charges which will accrue in connection with the occupation of the new premises. Doubtless other new expenses will crop up, and therefore care ought to be exercised. We cannot but think that this year the proceedings could have been got into a single week, which would have saved a respectable sum. The clerks to the Council will, in the

new building, have new work, and it is reasonable to afford them increased remuneration. Indeed, considering how much of the real work they do, and how well they do it, this must be anticipated. The Pharmacopoeia, too, will want more expense. The miserable addendum has cost a most unreasonable sum, and we sincerely hope that care will be taken not to waste money in such a way in the future. Anyone who looks into the expense of that little volume will be surprised. We should have thought that such a book could have been turned out for a trifle; but the amount spent on the chemistry of it alone is an example of extravagance that ought to be remembered.

Again, we say the finances of the Council should be looked after.

## Notes on Current Topics.

### An Ant-Cloud.

ON the 18th instant Cambridge was visited by an ant-cloud, the rare phenomenon occurring about six o'clock in the evening, and causing considerable annoyance to persons in the streets, the ants falling in countless millions about the pavements, and in the gardens and College courts. There were three kinds of ants, the great majority being the small winged male. Some of the larger ones were nearly half an inch long. Correspondents writing from Putney, Lewisham, Eltham, Southall Station, Ealing, Bexley Heath, &c., report that they observed in the roads and foot paths vast quantities of winged and wingless ants on the same evening.

### Dublin Main Drainage.

AT a special meeting of the Corporation, held last week, in reference to the above matter, it was resolved that the Council shall select three engineers to consider the subject, and report to a committee of the whole house, within two weeks from the date of their appointment; and as there are upwards of one hundred plans to be examined, these gentlemen will have an arduous duty to perform within a very limited period. We fear, therefore, that there is little chance of anything practical being done this year to remedy the present disgraceful condition of the drainage of Dublin; and we are afraid that in a few weeks the whole affair will be put aside until next summer again brings it into prominence.

### Hydrophobia.

A YOUNG man died at Brighton on August 14th from this cause. Early on the morning of the 13th, deceased felt unwell, and medical assistance was obtained, but it was found impossible to get him to swallow any medicine. Hearing that he had been bitten by a dog three weeks ago the suspicions of Dr. Rugg were aroused as to the nature of the case. He accordingly pressed him to drink a little brandy and water, but it was no sooner put to his mouth than he was seized with convulsions, and sprang up in his bed in a raving manner. He evidently wished to drink it, but was quite unable to do so. Seeing the danger of the case, Dr. Rugg called in Mr. Furber and Dr. Withers

Moore. They concurred in the opinion that it was a genuine case of hydrophobia. Chloroform was administered several times during the day, but it had no effect.

### The Professorship of Chemistry in Glasgow University.

THE Crown has appointed Mr. John Ferguson, M.A., to the Chair of Chemistry in Glasgow University, vacant by the retirement of Dr. Thomas Anderson. Mr. Ferguson has for some years been assistant to Dr. Anderson, and has of late performed the almost entire duties of the Chair, on account of the illness of Dr. Anderson.

### The Peculiar People.

THOS. HINE was tried on Wednesday last at the Central Criminal Court, before Mr. Baron Pigott. The charge of manslaughter of the child was not pressed, and at the close of the evidence his lordship expressed an opinion that no culpable negligence had been proved against the prisoner, and that the mere omission to call in a medical man in such a case did not amount to a criminal offence. The jury, therefore, returned a verdict of not guilty, and the prisoner was discharged.

### Absence of the Nose in a Child.

DR. ZOELLNER, of Schesslitz, communicates to the *Allgemeine Medizinische Central Zeitung* the following remarkable case of malformation:—

"On July 15th there was shown to me a child five days old, the subject of the following malformation. From the upper lip as far as the nasal bones, which project as in normally formed children, there is seen only a flat surface of skin, without furrow or opening. There is thus no trace of *alæ nasi*, nostrils, or nasal cartilage. The child is in general well developed. Nothing especial is to be observed in the mouth and fauces; but the *frænulum* of the upper lip is much developed. The principal point of interest is the mode of respiration. The child does not hold its mouth constantly open, as one would expect, but at short intervals separates the lips about a line from one another. The breathing is predominantly costal. If the lips be forcibly held apart for some time, in order, for instance, to examine the mouth and fauces, the child, after the removal of the finger, presses the lips firmly together for some seconds. The child is, of course, fed by hand, as sucking is impossible."

### French Association for the Advancement of Science.

THE annual meeting of this Association is being held in Lille, during the week from August 20th to 27th. Contributions have been promised by a large number of members of the medical profession, among whose names we notice those of MM. Bédard, Broca, Charcot, Chauveau, Lefort, Leudet, Marey, Ollier, Roger, Sée, Trélat, Verneuil, Wurtz, &c.

### Fees to Coroners.

A RETURN to the House of Lords, obtained by the Marquis of Salisbury, and recently issued, shows the payments made out of the county rates in respect of the disbursements of each of the coroners for the county of Middlesex during five years, from the first of July, 1869, to the 30th of June last. In the period Dr. Diplock re-



ceived respectively—£1,048 16s. 6d. in 1869-70, £1,118 18s. 8d., £1,278 5s. 6d., £1,424 9s., and £1,381 18s. 6d.; Dr. Lankester, £3,847 5s. 4d., £4,620 6s. 6d., £3,894 14s. 6d., £4,098 4s. 6d., and £4,144 8s.; Mr. Humphreys, £2,816 14s. 6d., £2,932, £2,929 5s., £2,985 9s. 4d., and £3,145 16s. 1d.; Mr. Bedford, £689 16s. 6d., £728 18s., £735 2s., £795 15s. 6d., and £705 1s.; and Mr. Payne received in the several years £64 14s. 10d., £97 9s. 8d., £62, £102 6s. 6d., and £93 9s. 6d.

### Questions at the Royal College of Surgeons.

THE following questions were given at the recent examination for the diploma of Member at the Royal College of Surgeons:—

#### Medicine.

1. You are summoned to an adult patient in a state of coma, and of whom you have no history. How would you proceed to examine the case so as to determine its nature? What are the chief causes of coma?

2. What are the diseases with which enteric fever (typhoid) is liable to be confounded in its earliest stages? By what symptoms would you be guided to a diagnosis in doubtful cases? What symptoms would make your diagnosis certain? What are the chief sources and indications of danger in this disease?

3. Give the medical properties of the following preparations, and the doses in which you would use them: Tr. digitalis, zinci sulphas, ext. belladonnæ, ext. ergotæ liquidum, ol. terobinthinæ, liq. arsenicalis, succus conii.

#### Surgery.

1. Describe the boundaries of Scarpa's triangle, and mention what tumours or swellings you may meet with in this region, and how you would distinguish them.

2. In what stages of their course may burns prove fatal? State what are the causes of death in each stage.

3. What are the causes and symptoms of perineal abscess? How would you treat such a case, and what consequences may result from its neglect.

4. What injuries are likely to result from a violent fall on the palm of the hand, with the arm raised and extended? Explain the mechanical mode in which such injuries are produced.

5. Describe the operation of placing a ligature on the brachial artery in the middle of the arm; and state by what vessels the circulation is re-established collaterally, and how the separation of the ligature is effected.

6. Describe, in their respective relations to each other, the various parts which must be divided in circular amputation of the leg, where the bones are sawn through immediately below the tubercle of the tibia.

### The Royal National Hospital for Consumption, Ventnor.

THE Earl of Strafford has just munificently contributed the amount necessary to become a donor of one of the sixteen hospitals or houses of which the institution is composed. This hospital is to be called "The Lady Agnes Byng's Hospital," in memory of the Earl of Strafford's first wife, Lady Agnes, fifth daughter of Henry, Marquis of Anglesey, K.G.

All the hospitals or houses are now either built or in

course of erection, excepting the two subsidiary hospitals. Funds, however, are still urgently required for many works still necessary, and for maintenance.

### Medical Microscopy.

AMONGST much other good matter in the last number of the *Quarterly Journal of Microscopical Science* are two useful papers (both read before the Medical Microscopical Society). The first, by Mr. Groves, of St. Bartholomew's Hospital, describes a new system of "Arranging and Cataloguing Microscopical Specimens." It is applicable to medium and large collections. Various systems have been proposed from time to time, but all have been deficient in one important quality possessed by that now under consideration—viz., facility of reference to any preparation or its component parts.

The principal features of this method are: 1st. A catalogue containing an alphabetical index to *everything* contained in *every* preparation, each reference being numbered according to the numbers on the slides. These are placed in the cabinet without any regard to arrangement, and simply numbered consecutively. This system can also be applied to collections arranged systematically, but in such there is generally loss of room, which is not possible in the original plan.

The second, by Dr. Baber, of St. Mary's Hospital, is on "Picrocarminate of Ammonia." It is entirely devoted to the most recent mode of preparation and employment of this staining fluid, invented by Ranvier, and largely used in the Parisian laboratories. The advantages claimed for it are, amongst others of minor importance, the property of staining tissues in a series of colours varying from red to yellow, of colouring rapidly and equally, and of being able to be kept in the dried form.

At a meeting of subscribers to the Livingstone Relief Fund, held at Glasgow on Thursday, a committee was appointed to collect money for the erection in that city of a statue to the late Dr. Livingstone.

MR. PETER MANNING was buried in the parish churchyard at Knighton, Leicestershire, last week, having attained the age of 101 years. He was a master framework knitter, and had been a Wesleyan local preacher for seventy years.

WITH regard to the report that there had been a fatal case of European cholera at Hanwell Asylum, a letter was read at the meeting of the Brentford Sanitary Board, on Wednesday last, showing that the death had arisen from other causes.

THE medical officers of the Islington Board of Guardians presented a memorial to the Board, asking a modification of the work, in consequence of parts of the district being very isolated, whilst in other portions the work of visiting was comparatively easy and quickly made. The Board declined to make any alteration in the rate of remuneration or the redistribution of duty.

NEARLY 2,000 calculi were exhibited at the Norwich



meeting, amongst which were—a stone weighing 15 ounces, successfully removed at the Norwich Hospital; a mulberry stone, weighing  $8\frac{1}{2}$  ounces, removed by Mr. Allen, of Norwich; a renal calculus from the right kidney, weighing  $36\frac{1}{2}$  ounces; and an enormous white oxalate of lime stone of undetermined weight, preserved in the kidney.

ONE of the guardians of the Spalding Workhouse recently performed in the character of a "sturdy rogue and valiant beggar," or, as we now say, a "casual." It had been objected by the Rev. Mr. Jones that the amount of work exacted from a casual in return for his food and lodging, viz., the breaking of two cwts. of granite in four hours, was too much, and, in fact, amounted to cruelty. Mr. Brett wasted no breath in words; he commenced his argument by taking off his coat, then proceeded to one of the tramps' cells, seized a hammer, and broke triumphantly two cwts. of granite in, not four hours, but one hour and forty-five minutes.

## THE BRITISH MEDICAL ASSOCIATION.

THURSDAY, AUGUST 13.

THE British Medical Association resumed its sittings, when an Address on Surgery was given by Mr. W. CADGE, F.R.C.S., Surgeon to the Norfolk and Norwich Hospital.

MR. CADGE observed that the novelties of surgical practice introduced during the last year or two were scarcely important enough to constitute a theme. They were chiefly comprised in Esmarch's bloodless system of operating, and Dittel's elastic ligature. Concerning these, he (Mr. Cadge) would only say that the first was not a novelty, having been practised by one of the members of the association many years since. The second was, in his (Mr. Cadge's) opinion, more curious than useful, and not worthy of a place either in the records or in the practice of surgery. There was one great subject which, if not exactly a novelty was of recent time, and was still waiting for a solution, both as to its facts and as to the theories held to account for its facts—he meant the germ theory of putrefaction and antiseptic surgery. This subject he considered of surpassing importance and interest. Underlying, if not undermining much of the existing fabric of surgical pathology and practice, it could not be too often brought to the bar of professional criticism; for on its right solution, whether it was true or not, depended a multitude of points in daily practice, and even probably the lives of many of our fellow-creatures. The remainder of Mr. Cadge's paper was devoted to an elaborate examination of stone disease. Incidentally alluding to the importance of milk for the support of young children, Mr. Cadge observed that it would be a glorious result of statecraft if, instead of the futile wrangling over the sale of fermented liquors, which had wrecked one powerful government, and by the disappointment of greedy expectants had gone far to sap the popularity of its successor, by some equitable enactment those who possessed and occupied the land should be held responsible for the production in sufficient abundance for the wants of the poor of that which was now a costly luxury, but which nature pointed out to be the chief—he might say the only need of early childhood.

A cordial vote of thanks was accorded to Mr. Cadge for his address.

A report was presented by the Parliamentary Bills Committee. The report stated that the committee had been further engaged in pressing upon the attention of the Government the claims of the medical officers of the army and navy to improved relative rank, pay, promotion, and retirement,

very full and complete information having been laid before the committee, derived from communications from officers of all ranks.

Professor HUGHES BENNETT made a statement as to the antagonism of medicines—hydrate of chloral and strychnia, sulphate of atropia and Calabar bean, hydrate of chloral and Calabar bean, sulphate of atropia and meconate of morphia, meconate of morphia and infusion of tea, meconate of morphia and theine, meconate of morphia and caffeine, meconate of morphia and quinine, meconate of morphia and infusion of coffee, extract of Calabar bean and strychnia, hydrate of bromal and atropia, &c. The statement was received with much attention, and elicited a hearty vote of thanks.

In the Public Medicine Section Mr. W. H. MICHAEL again presided. A discussion took place on a paper read by Dr. Beverley on the preceding day on hospital hygiene, with especial reference to the Norfolk and Norwich Hospital, in which a large amount of pyæmia has prevailed lately.

Dr. BEVERLEY replied. He stated that measures were being adopted to cleanse one of the walls of the Norfolk and Norwich Hospital. The question of economy must, of course, be considered; but still human life must not be sacrificed, and it would be better to have a small and thoroughly efficient hospital rather than a large and inefficient one. Some other points having been noticed by Dr. Beverley, the discussion closed.

Dr. C. J. FOX read a paper on water analysis as it should and should not be performed by the medical officer of health. Dr. Fox observed that the elementary principles upon which the greater part of the work of the medical officer of health was based might be said to be the prevention of water pollution and of air pollution with the products of decomposing filth. The examination of drinking water formed a very important portion of his duty in his crusade against preventible disease. The most rough and ready way which has been employed for ascertaining whether or not a water was polluted with organic matter was to partly fill a clear bottle with a sample of it, and having violently shaken the same, to take a hearty sniff at the air of the bottle which had been agitated with the water. If the air smelt sweet and fresh the absence of an injurious amount of organic matter was inferred, and *vice versa*. It should be borne in mind that the existence of an unpleasant odour or taste about the water from a well sunk through certain kinds of clay was no proof of the pollution of water with organic matter. Water, if allowed to remain long in contact with certain kinds of clay, acquired such an objectionable smell as to be sometimes quite undrinkable, and yet might not at the same time contain an amount of organic matter which would warrant its condemnation. A well of this kind could be made to furnish excellent water by the frequent withdrawal of its contents, or if that was not practicable, by filling up the dry portion of the well and by drawing the supply solely from the bore-pipe. Dr. Fox, in closing a paper of considerable length, said his great object in bringing the subject of water analysis before the association, which numbered among its members so many medical officers of health, was the hope that some uniform plan of examination might be adopted by all.

FRIDAY, AUGUST 14.

The Address in Obstetric Medicine was delivered by J. MATTHEWS DUNCAN, M.D., which will be found at page 174.

Dr. J. MARION SIMS (America) moved:

"That the best thanks of the Association be given to Dr. Matthews Duncan for his able and interesting address in obstetric medicine."

After a reference to Dr. Barker of America, whom he named as the Duncan of the States, the speaker made allusion to the complete system of registration of the cause of death in New York. He then asked leave to speak of the American Medical Association, and said that as Americans imitated England in everything, they twenty-

five years ago founded an Association. This had gone on and had published volumes of "Transactions." Two years ago, after the Association had been going on as well as could be expected, at the annual meeting at Philadelphia, he was ashamed to say, five hundred grave and learned men for twenty-four hours discussed everything but science—the woman's question, the question of negro doctors, and such like; and the Association nearly split upon these rocks. A few wise heads, however, advised that these questions should be relegated to a judicial committee, and at the last meeting the whole proceedings were most harmonious, there being present men from all parts, and representatives from Canada, and nothing but science was talked. He was glad to state this, showing that the American institution was forming itself on the basis of the British, and, in his opinion, the nearer the American came to its British model, the nearer it would be to perfection. (Cheers.) He then moved the resolution of thanks.

Mr. MASTER seconded the resolution, which was carried unanimously.

Dr. DUNCAN, in acknowledging the vote, said that he had shown that women, when they married and had children, underwent great perils; but, if he had gone to the other picture, of the women who married and had no children, it would be seen that they were in danger of more fearful perils still.

Sectional meetings were then held.

The concluding general meeting was held in Noverre's Rooms, at 1.30 p.m.

*The State Medicine Qualification Committee.*—Dr. RUMSEY, in resuming this subject, submitted that it would be advisable to make some provision for the adjournment of this question either to a general meeting or to the next year. He thought that some opinion should be expressed before the next session of Parliament; but, as he could not see his way to ask the meeting to adopt the draft report, there being differences of opinion on the committee, he thought the difficulties would be overcome if the report could be referred to three men to act as arbitrators, as Dr. Lyon Playfair, as representing Parliament, Mr. George Hastings, as representing law, and the Rev. Dr. Haughton, as representing Ireland.

Dr. FALCONER moved that the report be referred to the Committee of Council, saying that he had no doubt, if that course were adopted, the suggestion of Dr. Rumsey would be taken into consideration.

Dr. RUMSEY said he was quite agreed to take that course.

Dr. ARMISTEAD seconded Dr. Falconer's proposition, and this was agreed to unanimously.

Dr. BATEMAN (Norwich) proposed, and Mr. SOUTHAM (Manchester) seconded:

"That the cordial thanks of the British Medical Association be given to J. J. Colman, Esq., M.P., for his great hospitality in giving a *déjeuner* in the grounds of Carrow House."

Dr. FALCONER proposed, and Dr. RUMSEY seconded:

"That the warmest thanks of the Association are due, and are hereby given, to Dr. Copeman for his services in presiding over this the forty-second annual meeting of the British Medical Association."

He congratulated the President upon the success of the meeting under his auspices. There was not one member of the Association at Norwich to whom Dr. Copeman had not been desirous of showing some personal courtesy, and, if any had been overlooked, it was by accident, and not by intention. (Cheers.)

Dr. RUMSEY seconded the resolution, and said that though it did not need any recommendation, yet he could not help saying that the fortunate election of Dr. Copeman showed the advantage of taking as President the chief man of a locality, and was a proof in favour of the Association's present mode of selecting its Presidents.

Mr. SOUTHAM put the resolution, which was carried amid general cheers.

The PRESIDENT acknowledged the vote, and said it had

been a week of work to him, but it had been one in which he had received more information and matter for reflection than he could have received in years of study. He thanked on his part all who had endeavoured to increase the scientific knowledge of their brethren, and improve the science of medicine generally. He was sure that no medical man could have come to the meeting without learning something, or taking back with him some thoughts for future study, and thus the meeting would happily advance the medical art. (Cheers.)

## THE AMERICAN MEDICAL ASSOCIATION.

THIS great organisation has held its annual congress this year at Detroit, and it may be worth while to take some notice of its proceedings at a time when its British sister is furnishing a similar holiday in this country. We do not propose to contrast the two associations, as we should find our own to be rather inferior in many respects.

After the Presidential Address, in which there was a sketch of the history of the association, routine business was transacted.

The next most interesting event was the Report of the Judicial Committee on the question of a general revision of the Code of Ethics, which is supported by all the influence and power of the association.

The committee considered that the objectors to the present code could be divided into two classes: firstly, those who looked upon the code in the light of ordinary by-laws, and who regarded all in the present code relating to the duties of patients to physicians, of the public to the profession, and of the profession to the public, as superfluous, who would retain only so much as related to the intercourse of physicians with each other. To these the committee would reply that the Code of Ethics is more than a series of by-laws, that it does not attempt to give rules applicable to every case, but does attempt, and is well adapted as it now stands, to give the principles by which the duties of both physicians and the public should be regulated.

The second class of objectors to the present code do not object to it as a whole, but wish certain alterations, principally in those parts relating to two subjects—viz., specialities and bestowing professional services by contract. In regard to specialities, the committee considered that if specialists are members of the profession they must be governed by the same principles of action as the whole profession. Special practice is simply a self-imposed limitation of duties, and should be indicated not by special titles, as "oculist," "gynaecologist," &c., but by a simple notice appended to the ordinary card of the physician, saying "practice limited to diseases of the eye," &c. In regard to the bestowal of services by contract, the present code sanctions gratuitous service to the poor, whether singly or in charitable institutions, but forbids such service to other institutions which are able to pay. Although such institutions may pay the physician a certain sum per annum, yet such a method of payment violates the principle that the physician should be paid for services rendered.

Charitable institutions should not bid for the lowest bidder, but fix a salary and get the best man who is willing to take it at the price offered. The committee therefore recommended that the present code remain unaltered.

A resolution was passed unanimously adopting the report.

A committee on the rank of the medical staff of the army reported that they had memorialised congress; the memorial had been twice read and referred to the military committee, who have as yet taken no action upon it.

The annual address on practical medicine was delivered by Dr. N. S. Davis, chairman of the section on practical medicine, materia medica, and physiology.

In a future number we propose to publish a portion of this address.

Dr. S. D. Gross, of Philadelphia, chairman of the section on surgery, read an interesting report upon the subject of syphilis.

The principal points in his address were that there is no

duality of poison in this disease; that the virus of hard and soft chancre is identical. A long and elaborate historical argument was presented to sustain this view. Then, the vast number of persons directly or indirectly affected by syphilitic taint was graphically depicted. To rescue the race from the effects of promiscuous sexual intercourse he advocated a compulsory medical examination of prostitutes.

Dr. A. N. Bell, of Brooklyn, read an address on "The Waste of Life," taking for his text the sentence from Taylor's Medical Jurisprudence—"It is held in law that whoever accelerates death causes it."

The speaker mentioned the wide-spread and well-known existence of preventable causes of death. Notwithstanding the knowledge of the existence of these causes, and the knowledge of their preventability, the community quietly suffers their continuance, except when temporarily aroused by some shocking disaster. Much is then said, but little done. But, even worse than the causes of sudden death are those of slower action. Houses are built over old cesspools; halls of assembly are built with imperfect ventilation; country dwelling-houses are often surrounded by stables, cesspools, and wells, in close proximity to each other.

Tenement houses are built in which whole village populations live, where cleanliness is next to impossible, and the natural consequence of dirt is loss of health, loss of self-respect, then degradation and crime. One-half of the children born in New York are born in tenement houses, and New York is a Christian city! The argument that these causes of death only serve to remove a superfluous population, and so leaves more of the common stock of the materials of life for those who are left, is erroneous. For a great portion of these deaths are among the young, and, up to fifteen years, children are consumers and not producers, hence, all who die before that age, fail to produce any part of the common stock. Again, when adult men die, they leave usually widows and orphans, who, being for the most part simply consumers, fall back upon the State.

Dr. E. Seguin, of New York, as delegate to foreign medical societies, reported that he had attended meetings of certain English and French societies, where he had advocated the establishment of a harmonious method of clinical observation.

In the section on practical medicine, materia medica, and physiology, Dr. Bulkley, of New York, presented a paper on "The Management of Eczema," the principal points of which were that eczema differs from an ordinary dermatitis in being a true catarrhal dermatitis, and in depending not merely upon local, but upon constitutional causes. In a simple dermatitis, the removal of the cause and prevention of further irritation suffice to a cure, but in eczema the dermatitis runs a definite course. Debility alone does not cause the tendency to eczema, but some blood change, represented in the main by a state of sub-oxidation, or hyper-acidity, a condition allied to that of gout, rheumatism, scrofula. Acute eczema is self-limited. In the chronic stage we have to do with the products of inflammation. Treatment varies accordingly.

Although a constitutional disease, local treatment is important. In the acute stage indications are, removal of local causes, prevention of irritation. In the chronic stage, Dr. Bulkley warmly recommended his "liquor picis alkalinus," which has the following composition:—

R. Caustic potassa, 3j.;  
Tar, 3j.;  
Water, 3v.

In preparing this the potassa is dissolved in the water, and this solution poured upon the tar in a mortar, and mixed. This remedy should always be used diluted, except where a strong application in very chronic cases is desirable.

Constitutional treatment is of prime importance. Arsenic is a valuable remedy, but by no means a specific one. The treatment should be dietetic, hygienic, and medicinal. Diet should be simple; fresh air, cleanliness and rest should be secured. Medicinal treatment embraces diuretics, to relieve the skin; alkalies are rationally indicated, to counteract the hyper-acidity of the blood; quinine, strychnine, iron, acids and arsenic should be given as tonics. Cod-liver oil is more nearly a specific than anything.

This paper was very thoroughly discussed by the section, and recommended for publication.

Dr. D. J. Farnsworth, of Iowa, then read a paper upon "The Therapeutics of Ammonia," which we intend to publish, at least, in abstract.

Dr. Reuben A. Vance, of New York, read a paper on "The Mechanism of the Encephalic Circulation."

His conclusions as to the peculiarities of cerebral circulation are condensed as follows:

1. Atmospheric pressure operates in such manner as to keep the fluid contents of the skull at all times the same.

2. The heart can, under certain circumstances, exert a compressing influence upon the encephalic structure; and,

3. The relative quantities of arterial and venous blood and extra-vascular serum vary with cardiac contractions, respiratory movements, sleep and wakefulness, and mental excitement and repose.

Dr. F. R. Buckram read a paper on "Uræmia," in which, from an extended series of experiments, he concluded that uræmia existed in very many cases where no albuminuria could be found; that this condition exists much more frequently than is usually supposed, and is the cause of many of those phenomena of disease which are as yet ill understood, and often of an undefined nature. Such he considered to be the probable cause of muscular rheumatism, neuralgia, the muttering delirium of low fevers, &c.

In the section of obstetrics and gynecology several discussions took place, one of them, on "Transfusion," Dr. Parvin exhibiting some instruments for this operation, and another on ovariectomy.

In the section on surgery and anatomy, Dr. A. Dunlap, of Springfield, Ohio, read a paper detailing the history of a case of "Enchondroma over the Sternum," and Dr. E. M. Moore, of Rochester, one on "Epiphyseal Fracture of the Superior Extremity of the Humerus."

Prof. Sayre, of New York, reported on the subject of "Fractures." His principal points were—(1st.) That surgeons should never, as was the old custom, wait nine days for the swelling to subside before setting a fracture. (2nd.) That the generally accepted idea that in oblique fractures of the long bones we were to expect deformity, is erroneous, and the sooner corrected the better. (3rd.) All that is necessary in any fracture is extension and counter-extension in the right direction, so as to have accurate adjustment. (4.) If extension greater than normal is made, it would cause reflex contraction and irritation, but if we only use extension until the normal length is reached, and then retention, all will be quiescent.

He said it made little difference how this extension and how this retention are made, provided that they are made—plaster of Paris, starch, soluble glass, splints—the methods may vary, the principle is the same.

In support of his statements the speaker adduced the measurements in 115 cases treated in Bellevue Hospital. Some of these were lengthened, some without shortening, some with a shortening of one-sixteenth to one-eighth of an inch. Excluding three cases, which had, one two inches, a second one and three quarters, the third one and a half, these cases suffering respectively from abscess, delirium tremens, and pneumonia (which being kept horizontal had permitted shrinkage, and hence shortening)—excluding these, a very highly favourable average had been obtained.

A long discussion then took place, in which Dr. Hodgen, of Missouri, objected that if a thigh be extended in a plaster of Paris splint, the muscles on the back would be tense, while those on the front would be relaxed; that it is impossible to secure the same degree of tension in all the muscles, hence there must always be irritation of the soft parts. Dr. Sayre replied that it was possible; in fracture of the femur treated upon the inclined plane, we must have a thigh-piece capable of being shortened or lengthened. Dr. Gregory, of St. Louis, was astonished; he thought Prof. Sayre's results barely possible, and wanted further evidence. He maintained that there can be no union of either soft or hard parts without shortening, owing to the resorption of the parts next to the lesion, which constitutes a part of the reparative process. There is no scar without contraction. Dr. A. Garcelon spoke of the great practical importance to the entire profession of the statements of Prof. Sayre. He agreed with Prof. Sayre in aiming at exact apposition, but doubted the possibility of its attainment in the degree mentioned by Prof. Sayre. He further alluded to the difficulties of accurate measurements. If the position taken by Dr. Sayre is accurate, the profession has much to learn, and the public much to complain of. Dr. Gross said he preferred the solution of silicate of potassa or of soda to plaster of Paris in making his bandages. He believed that a certain amount of shortening was necessary in oblique fractures of the femur. Dr. Reed, of Ohio, believed there is always shortening; alluded to the fact that he had never seen a skeleton in which the corresponding bones (though never

broken), were perfectly equal in length. Dr. Whiting, of Wisconsin, was alarmed at Prof. Sayre's statements. The records of the profession for the past fifty years do not lead us to expect such results as those reported from Bellevue Hospital. If Prof. Sayer was right, he would, in self-defence, be compelled to retire from the profession, as would many others. Dr. Waterhouse, of Wisconsin, said if these statements are true and these figures accurate, then let us face the situation, and let the danger of suits come. There is a reason for this unheard of success at Bellevue in the appliances at hand, and the constant attendance and care available, which country practitioners can never enjoy, and suits for malpractice are generally brought in the country. Back-woods doctors scarcely ever have proper appliances, and cannot possibly give cases constant personal care. Dr. Pierce, of Illinois, thought that the facts should be made known, and if surgery has made such advances, it should be declared. He believed that Prof. Sayre's measurements had been made too soon. Shortening goes on after discharge, and when the limb has been brought into use. He advocated the Bavarian splint. Dr. Sayre said that he *knew* his measurements were correct; that Dr. Frank Hamilton had made the measurements, and that he was a man who was so violently opposed to the theory that, in his published writings, he had denied the possibility of any oblique fracture being cured without shortening. For this reason he (Dr. Sayre) had asked him to measure the patients. He said if seven successive cases would be presented, he would agree to give up his opposition to the theory. He found the cases, and surrendered.

A resolution was passed to the effect, that the results of the treatment of fractures as made public in Professor Sayre's paper, are better than can be looked for in general practice.

Dr. George M. Beard, of New York, read a paper upon the uses of electricity in surgery, advocating its use in goitre, in benignant tumours, mentioning its favourable effects in certain cases of epithelioma and scirrhous. He also advocated its use in certain diseases of the skin.

## Correspondence.

### ON THE THEORY OF COUNTER-IRRITATION.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—I have only just seen Dr. Drysdale's letter which appeared in your issue of August 5, otherwise I would have replied to it sooner. Dr. Drysdale is mistaken in thinking that I was "unaware of having been preceded by Fletcher" in the belief that counter-irritants act by stimulating the diseased part. I adopted this view myself when a student, and very naturally thought that it was entirely original, and a letter from me, in which the stimulant action of counter-irritants was distinctly enunciated, appeared in the *British Medical Journal* for 1863. Several years subsequently Dr. Dickenson opened a controversy on counter-irritation, and when Dr. Anstie, who took part in it, spoke of the stimulant action of blisters, I put in a claim of priority. Dr. Anstie, in reply, said that he did not think the point of much consequence, but that he had given expression to the same opinion several years before I did. It is, therefore, true, as Dr. Drysdale says, that Dr. Anstie claimed priority of me, but nowhere that I know of did he claim priority of every other one, and pretend that the idea was exclusively his own. In a subsequent communication to the *Practitioner* I renounced all claim of priority to the idea; but as I am not at home at present I cannot give Dr. Drysdale the exact reference. About this time I found that Dr. Graves held the same opinion, and my friend, Mr. Pope, called my attention to Fletcher's view.

On finding that the belief in the stimulant action of counter-irritants was more widely diffused than I had previously any idea of, I have since continued to use the conception as the common property of the profession, and I have not associated it with the name of Fletcher or with any other name, because I do not even now know whether or not the view was original on the part of Fletcher. But if Dr. Drysdale will prove, not merely that the conception is to be found in the writings of Fletcher, but that it is not to be found in any anterior writings, then I will in future associate his name more closely with the idea than I have hitherto done. Had I been giving an historical account of the genesis of the conception I should have been culpable had I failed to mention the name of Fletcher;

but as my object was to utilise the idea for a specific purpose, and as I had previously made a formal and public renunciation to all claims of priority, I did not deem it necessary to mention any name in connection with it. No one, of course, can blame Dr. Drysdale for endeavouring to obtain justice for the memory of a late friend and teacher, and I am not at all surprised that he has made my article the occasion for bringing Fletcher's views before the profession, and I hope that he will fully understand that I have not now and never had the slightest wish to detract from any merit due to Fletcher with regard to the subject. My own claim to originality respecting the theory of counter-irritation rests upon a different basis. I have, so far as I know (but even upon this point I would like to speak with some diffidence), supplied a new machinery by which the stimulant action may be supposed to travel from the source of irritation to the diseased part. Fletcher believes that it is mainly owing to an action of the vessels, while I believe, on the contrary, that it is chiefly due to the proper parenchyma of the part. Fletcher may be right, and I may be wrong; but our ideas respecting this part of the subject most assuredly differ very considerably.

I am, Sir, yours very sincerely,

Ashby Folville, Aug. 20, 1874.

JAMES ROSS, M.D.

### RAILWAY CASES—A SUGGESTION.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—The conflicting medical evidence in railway cases has been sufficient of late to throw grave doubts upon its value. How a jury of even intelligent men can form an opinion or assess damages when the evidence of equally eminent members of the profession is so diametrically opposite I am at a loss to conceive, for a jury composed of medical men would have the greatest difficulty.

There are cases of this kind at almost every court of assize in the country, and the medical evidence is nearly always conflicting, and must be very perplexing to both judge and jury. We are aware that these cases present unusual difficulties; hence the varied but no doubt honest opinions expressed in our courts of law.

I read with surprise and regret the difference of opinion expressed in the last two cases, and fully agree with the remarks in your last issue; like you, "I do not see why, if a committee of competent physicians had adjudged upon the matter after careful investigation, they need have experienced any difficulty in arriving at the truth."

I would suggest in these cases that the jury, through the judge, should appoint a jury of medical men, consisting, say, of 5 in number, who had not previously seen the patient, that these should examine and report on the case for the benefit of the common jury. (Three of the members of the medical jury agreeing should be deemed sufficient, and their report accepted.) This report would be of the greatest value, and would assist the jury to form an opinion of the case and to assess damages.

The fee for such examination and report to be fixed on at the time, and in proportion to the amount claimed by the plaintiff, and paid with the other costs in the case.

If this plan were adopted we should have legitimate damages awarded, and should be saved the disgrace of seeing the conflicting evidence we have at present.

Every assize town would be able to produce a sufficient number of eminent men for the purpose, who would do justice to the parties concerned, and be appreciated by the general public.

I am, Sir, yours, &c.,

WM. BERRY, M.R.C.S. Eng., &c.

Wigan, Aug. 20, 1874.

## Medical News.

Royal College of Surgeons of England.—The following gentlemen having passed the required examinations for the diploma, were duly admitted members of the College at a meeting of the Court of Examiners on July 30th.

Frederick S. Alfred, Hampstead; Charles W. Belfield,

Bristol; George W. Bell, Hatfield; George H. Bishop, Harrow Road; John J. Byrne, Manchester; Bolton G. Corney, Kensington Road; Thomas H. Haslam, L.S.A., Finboro' Road; Lewis Jones, M.B. Dub., Aberystwith; Wm. A. Kennedy, Newcastle-on-Tyne; John J. Newman, Barnsley; Edward Noott, L.R.C.P.Ed., Dudley; Arthur Norton-Taylor, Maida Hill; John B. Sincock, L.S.A., Scorrier, Cornwall; Wm. Speirs, L.R.C.P.Ed., Glasgow; Samuel J. Thomson, L.S.A., Ramsgate; James H. Turtle, L.S.A., Chatham; Herbert E. Williams, Tavistock.

Of the 190 candidates examined during the fortnight, 44 failed to satisfy the Court of Examiners, and were referred to their professional studies for six months. This is the last examination for the Membership of the College until November.

**Apothecaries' Hall.**—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, August 6th, 1874: Brady, Owen Cornelius, Vernon Road, Birmingham; Mitchell, Charles Joseph Carter, Kempton, Bedford.

The following gentlemen also on the same day passed the primary professional examination:—

Calcott, Lewis Berkley, St. Bartholomew's Hospital; Haselden, Robert, St. Bartholomew's Hospital; Parkinson, Sidney George, St. Mary's Hospital; Pearless, Walter Relf, St. Bartholomew's Hospital; Upton, Alfred, St. Bartholomew's Hospital.

The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, August 13th, 1874:—

Harle, William John Vincent, Eagle Villa, Hackney; Horne, John Fletcher, Clarendon Road, Leeds; Snook, William Ernest, Colyton, Devon.

The following gentleman also on the same day passed his primary professional examination:—

Lucas, Arthur, Middlesex Hospital

**University of London—First M.B. Examination—Examination for Honours.**—**ANATOMY—First Class:** Kectley Charles Robert Bell (Gold Medal), St. Bartholomew's Hospital. **PHYSIOLOGY, HISTOLOGY, AND COMPARATIVE ANATOMY—First Class:** Tirard Nestor Isidore Charles (Exhibition and Gold Medal), King's College; Carrington, Robert Edmund, Guy's Hospital. **Second Class:** Kectley Charles Robert Bell, St. Bartholomew's Hospital. **ORGANIC CHEMISTRY, AND MATERIA MEDICA AND PHARMACEUTICAL CHEMISTRY—First Class:** Carrington Robert Edmund (Exhibition and Gold Medal), Guy's Hospital; Kectley Charles Robert Bell (Gold Medal), St. Bartholomew's Hospital (obtained the number of marks qualifying for the Exhibition); Burton, Samuel Herbert, University College.

**King and Queen's College of Physicians in Ireland.**—At examination meetings of the College held on Tuesday, Wednesday, and Thursday, August 4th, 5th, and 6th, 1874, the Licence to Practise Medicine was granted to—

Dane, Arthur Henry Cole Vesey Agmon Blathwayt; Hogau, Edward Michael Angelo.

The Licence in Midwifery was obtained by—

Gordon, Samuel Thomas Vesey, Agmon Blathwayt

The Licence to Practise as a Midwife and Nursotender was granted to—

Greenstreet, Miss Ellen M.

Miss Greenstreet is the first candidate who has presented herself for examination under the new bye-law of the College.

**Royal College of Physicians and Surgeons, Edinburgh—DOUBLE QUALIFICATION.**—The following gentlemen passed their first professional examination during the recent sittings of the examiners:—

William Deane Penier, Cork; Cecil Osburne, Cork; George H. Bentley, Bombay; John Hugh Maclean, Edinburgh; George Taylor Schofield, Yorkshire; William Perrin Brown, Warrington; Mackintosh A. J. Collie, Morayshire; Thomas Gallimore, Ashwood, Longton; Archibald Alexander Hamilton, India; James W. McGlade, Edinburgh; Hargreaves H. H. Hanson, Leicester; Walter T. Ramsden, Batley; William Henry Vickerstaff, Macclesfield; and John Mitchell Carr, County Armagh.

The following gentlemen passed their final examination, and were admitted L.R.C.P.E. and L.R.C.S.E.

Richard Wilkins, Madras; Wm. O'Hara, India; Richard Stratheden Dawson, India; George Benjamin Powell, Dublin; John Francis Herring, South Wales; Reginald

Hartley, Yorkshire; Hugh Alexander Auchinleck, Strabane; William M'Iver, County Tyrone; Marc d'Espaignet, Mauritius; Thomas Douglas, Northumberland; Fray Ormrod, Lancashire; John Edward Allen, Cheshire; James Bruce Ronaldson, County Cork; Rowland Cooke O'Meara, Dublin; Edward William Thomson, East Indies; John Walker Smyth, County Antrim; John Frederick Johnson, Monaghan; Nicholas Leader, County Cork; Walter Kavanagh Verling, County Cork; David John Ross, Galway; Thomas Horne, Whitby; Thomas William Myles, Limerick; Henry George Horace Naylor, Calcutta; James William Whiteford, Canada; Patrick Joseph Hayes, Cork; James Rutherford Morison, County Durham; and William John Vereker Bindon, Cape of Good Hope.

**Drogheda Medical Society.**—The anniversary meeting of the formation of this Society was held at Navan on Monday the 3rd inst. Dr. Hamerton was made President for the ensuing year, Dr. Delahoyde Vice-President, and Dr. Clarke re-appointed Secretary for another year. Addresses were delivered by the President and the Secretary. It was arranged that the area of the Society should be extended so as to include the whole counties of Meath and Louth, as several gentlemen wished to join who were outside the previously existing boundary.

**Army Medical Service.**—List of gentlemen who competed successfully for appointments as surgeons in H.M.'s Army Medical Service at the competitive examination held at the London University on the 10th August, 1874.

No. of Marks.		No. of Marks.	
Harrison, E. C. ...	2,525	Smith, R. ...	1,615
Wellings, B. W. ...	2,250	Gardner, R. H. ...	1,555
Trevor, F. W. ...	1,830	Campbell, W. ...	1,545
McGann, J. ...	1,785	Gardner, H. G. ...	1,537
Bourke, G. D. ...	1,690	Carter, S. H. ...	1,525
Forrester, J. S. ...	1,680	Powell, J. ...	1,480
Mullane, J. ...	1,658	May, W. A. ...	1,422
Scott, H. ...	1,650	Hoysted, J. ...	1,395
Fogerty, H. A. ...	1,615		

Dr. C. J. B. Williams has been appointed Physician-Extraordinary to the Queen.

Small-pox is said to exist in the Forest of Dean, and appears to be spreading.

## NOTICES TO CORRESPONDENTS.

CORRESPONDENTS requiring a reply in this column are particularly requested to make use of a distinctive signature or initials, and avoid the practice of signing themselves "Reader," "Subscriber," "Old Subscriber," &c. Much confusion will be spared by attention to this rule.

## VACANCIES.

Accrington and District Dispensary. Medical Officer. Amersham Union. Medical Officer for the Mismenden District. Salary, £34 per annum.  
Anderson's University, Glasgow. Professor of Chemistry. Applications, 1st September, to J. B. Kildston, Secretary.  
Birmingham General Dispensary. Additional Resident Surgeon. Salary, £130 per annum, rising to £150, £30 per annum for cab-hire, furnished rooms, &c. Applications, 29th inst., to A. Forrest, Secretary.  
Borough of Stockport. Medical Officer of Health and Borough Analyst. Salary, £150 per annum for one year.  
Bradford (Yorkshire) Eye and Ear Hospital. Assistant Surgeon. Salary, £52 10s. per annum. Application, 8th September, to William Maw, Secretary.  
Cancer Hospital. Resident House Surgeon and Registrar. Salary, £103 per annum, with board and residence. Applications, 27th inst., to the Chairman of the Weekly Board, 187 Piccadilly.  
Carlisle Dispensary. Assistant House Surgeon. Salary, £90 per annum, with apartments, coal, gas, and attendance. Applications to Mr. Davidson, Hon. Sec., 8 Devonshire Street, Carlisle.  
Garstang Rural Sanitary District. Medical Officer of Health. Salary, 21s. per case, and 61. per mile each way. Applications, 27th inst., to Thomas Noble, Clerk.  
Great Northern Hospital. House Surgeon. Salary, £63 per annum, with board and lodging. Applications, 28th inst. Also Physician-Surgeon. Applications, 15th September, to A. Phillips, Secretary.  
Hoxne Union, Suffolk. Medical Officer for the Hoxne District. Salary, £12 12s. 6d. per annum.  
Hull and Sculcoats Dispensary. House Surgeon.  
Hull General Infirmary. Resident Assistant Surgeon. Vacancy 1st September. Applications to W. Shepherdson, Secretary.  
King's College Hospital. Physician to Out-patients.  
Newcastle-on-Tyne Infirmary. Physician. Applications, 3rd September, to R. Y. Green, Secretary. Also Senior House Surgeon.



Queen Charlotte's Lying-in Hospital. Resident Medical Officer. Applications, 7th September, to A. Boodle, Secretary.  
 Bedford Urban Sanitary District. Medical Officer of Health. Salary, £50 per annum for three years. Applications, 27th inst., to R. Harwood, Clerk to the Authority.  
 Royal Cornwall Infirmary, Truro. Physician.  
 South Shields Urban Sanitary District. Medical Officer of Health. Salary, £300 per annum for three years. Applications, 27th inst., to J. M. Moore, Clerk to the Authority.  
 Western Ophthalmic Hospital, Marylebone Road. Two Surgeons. Applications to R. C. Wilson, Hon. Sec.  
 York Dispensary. Resident Medical Officer. Salary, £130 per annum, with apartments, coals, and gas.  
 Yorkshire Lunatic Asylum. Resident Medical Superintendent. Salary, £300 per annum, with house-rent and taxes free; coals, gas, vegetables, milk, and washing provided; £150 will be expended on substantial furniture.

#### APPOINTMENTS.

BRAILEY, W. A., M.A., M.D. Cantab., Curator of the Museum of the Royal London Ophthalmic Hospital, Moorfields.  
 CORNACK, J. C., L.R.C.P., House Surgeon to the North Dispensary, Liverpool.  
 CROWFOOT, E. B., M.B., Medical Officer to the Beccles Hospital.  
 CROWFOOT, W. M., M.B., Medical Officer to the Beccles Hospital.  
 HORNER, A. C., M.R.C.S., House Surgeon to the Kidderminster Infirmary.  
 JENKINSON, H., Esq., Senior Resident Medical Officer to the Leeds Public Dispensary.  
 JULIE, H. E., M.R.C.S., L.S.A., House Surgeon to the Female Lock Hospital and Asylum, Westbourne Green.  
 KEELING, J. H., M.D., re-appointed Surgeon to the Sheffield Public Hospital and Dispensary.  
 KEYWORTH, G. H., M.R.C.S., L.S.A., House Surgeon to the Buckinghamshire General Infirmary, Aylesbury.  
 M'GILL, A. F., Esq., elected Honorary Surgeon to the Leeds Public Dispensary.  
 MAGRATH, J., M.D., Assistant Physician to the Metropolitan Free Hospital.  
 MEDCALF, E. S., M.R.C.S.E., L.R.C.P. Ed., L.S.A. Lond., Resident Medical Officer to the Western Branch of the Brighton and Hove Dispensary.  
 METCALFE, R. L., M.D., Medical Officer to the Beccles Hospital.  
 NEEDHAM, F., M.D., Medical Superintendent of the Barnwood House Lunatic Asylum, Gloucester.  
 PRICHARD, A. W., M.R.C.S., House Surgeon to the Royal Westminster Ophthalmic Hospital.  
 ROGERS, M. C., M.R.C.S., Honorary Surgeon Dentist to the Western General Dispensary.  
 SMITH, J., M.D., Physician to the Dumfries and Galloway Royal Infirmary.  
 SPRATLY, S., M.D., Medical Officer to the Birkenhead Borough Hospital.  
 VERNON, W., M.R.C.S.E. (Demonstrator of Anatomy at the Westminster Hospital Medical School), Honorary Surgeon to the Farringdon Dispensary.  
 WATSON, M., M.D., Professor of Anatomy in Owen's College, Manchester.  
 WHITTLE, E. G., L.R.C.P. Lond., House Surgeon to the Hove Lying-in Institution, Hospital, and Dispensary for Women and Children.

#### Marriages.

BYERS-BOWMAN.—On the 20th inst., at the parish church, Bishopwearmouth, Sunderland, William Lumsden Byers, to Florence, daughter of Henry Overend Bowman, Esq., M.D.  
 PAGE-BAUTHEMELL.—On the 19th inst., at the parish church, Holmes, Westmoreland, David Page, M.D. Edin., eldest son of Dr. Page, Professor of Geology and Mineralogy in the University of Durham, to Mary, only daughter of John Rauthmell, Esq., of Brook House, Holmes.  
 ROGERS-FLOWER.—On the 20th inst., at St. Mary's, Lambeth, Hildyard Rogers, M.R.C.S., to Edith, second daughter of the late George Flower, M.R.C.S., of St. Martin's Road, Stockwell.  
 SEWELL-WILSON.—On the 18th inst., at Cliffe-at-Hoo Church, co. Kent, Frederick John Sewell, to Elizabeth Charlotte M'Sween, eldest daughter of the late Andrew Wilson, Deputy Inspector-General of Hospitals.  
 SMITH-TAYLOR.—On the 19th inst., at the Church of St. John the Evangelist, Taunton, Frederick John Smith, to Annie Eytton, second daughter of Thomas Taylor, M.D., late of Adelaide, S.A.  
 SWANZY-DEWHAM.—On the 19th inst., at 30 Merrion Square, Dublin, by the Rev. W. B. Kirkpatrick, D.D. assisted by the Rev. David M'Kee, Henry B. Swanzy, M.D., F.R.C.S.I., Upper Mount Street, Dublin, to Mary Knox, eldest daughter of John Denham, M.D.

#### Deaths.

DURHAM.—Late, at Sandford, co. Dublin, Andrew Durham, M.D., Deputy Inspector-General of Hospitals, aged 61.  
 HAYMAN.—On the 2nd August, at West Malling, Charles C. Hayman, M.D., aged 42.  
 MAULE.—On the 9th August, at Bath, John Templeman Maule, M.D., late Deputy Inspector-General of Hospitals, Madras Army, aged 73.

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Y 982. EXCELLENT FAMILY PRACTICE in a prosperous and pleasant town, containing 28,000 inhabitants. Midwifery fees, £1 ls. to £5 5s. Receipts average £1,700 a year. The work can be done with one horse. A most effective introduction can be given, and to a doubly-qualified gentleman accustomed to good society the Practice presents a safe and desirable investment.

Y 999. PARTNERSHIP, with SUCCESSION, in an old Cathedral Town. The present receipts average upwards of £700 a year. The locality is picturesque, and there is great scope for increase. Books open to full investigation to a suitable gentleman accustomed to good society. Easy terms of payment would be conceded.

Y 998. NON-DISPENSING PRACTICE in a prosperous town within 100 miles of London, and near the coast. The connection has been in the present hands for thirteen years, and is estimated to yield on an average about £700 a year. Expenses small. Patients good class. Ill-health the cause of retirement.

Z 9. In a fashionable watering place, an OLD ESTABLISHED FAMILY PRACTICE, the average receipts from which are between £1,000 and £1,200 a year. Midwifery having been lately declined, there is little obstetric practice, but there is scope for almost unlimited increase if this department were resumed. The house is large, very convenient, and very near the shore; it contains twenty-three rooms, with detached groom's house, stabling, &c. It can be purchased or rented. Ill-health and advancing age the cause of retirement. The premium would depend upon the introduction required; but no gentleman need negotiate unless he have at command at least £1000.

Y 8. PARTNERSHIP, with SUCCESSION in 3½ years. Present practice realises £600 a year, but is capable of immediate increase by the co-operation of an active gentleman. It is situate in a large town on the south coast, and there is scope for almost unlimited increase. There is a good house, with stabling, &c. Rent, £47. Expenses small. Premium £400, to include Succession to the whole.

Z 7. DEATH VACANCY. In a picturesque locality near the sea-side, the SUCCESSION to an OLD-ESTABLISHED PRACTICE is open for negotiation upon unusually easy terms. The average receipts have been about £1,300 a year, and there is little opposition. Patients very good middle-class. There is a convenient house, with stabling, &c., at a low rent. The greater part of the premium may be paid by instalments properly secured, the drugs, fixtures, &c., being taken at valuation. The whole connection can be safely transferred to a suitable gentleman.



# The Medical Press & Circular.

"SALUS POPULI SUPREMA LEX."

WEDNESDAY, SEPTEMBER 2, 1874.

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## A Course of Lectures

ON THE

### NATURE AND TREATMENT OF DEFORMITIES OF THE HUMAN BODY,

DELIVERED IN THE MEATH HOSPITAL, DUBLIN, BY

LAMBERT H. ORMSBY,

Surgeon to the Hospital, and Demonstrator in the School of Surgery, Royal College of Surgeons in Ireland.

LECTURE VI.

DEFORMITIES OF PELVIS.

*The Great Importance of considering Deformities in this Region—The Situations—Dr. Robert Lee's Experience as to the Cause of Difficult Labour—The Doctrine of a certain Church as regards Craniotomy and Cæsarian Section—The Different Pelvimeters in Use, their Application, and their Non-Applicability in many Cases—The Degrees of Deformities—Classification—Causes of Pelvic Deformity: Treatment, Local, Constitutional, and Mechanical—Deformities of Sacrum and Coccyx: Treatment—Concluding Remarks.*

THE consideration of the deformities of this important region is ever of the greatest moment and interest to the obstetrician. Happy indeed would it be if every child-bearing woman was possessed with a "standard pelvis;" but, unfortunately, too often we are made conscious of the very serious, and sometimes fatal effects, that are produced to mother and offspring when deformity or abnormality is present.

These distortions are divided, for convenience, as they affect the *brim*, the *cavity*, and the *outlet* of the pelvis, singly or collectively. There are many causes prone to produce obstruction in parturition, and Dr. Robert Lee said that, in his experience, about 1-6th of all the cases of difficult parturition which occurred in London depended upon contraction of the pelvis from arrest of development or distortion, and in some cases the pelvis is so frightfully distorted that it is impossible to effect delivery at all;

but recourse to removing the child piecemeal, or by other recognised methods, must be practised. In a certain Church there is what I believe to be an erroneous doctrine, which is to the effect that it is against the tenets of their creed to sacrifice the life of the infant for the safety of the mother, and perform, when necessity requires, Cæsarian section instead of craniotomy. In some countries this unfortunate idea has been the means of causing many deaths of not only mothers, but also the infants of those who adhere most determinately to such a short-sighted doctrine.

Distortions of every description are met with in the pelvis, produced by various causes, and the diameters may be considerably below the "normal standard," and there are few osteological museums that do not present numerous examples of the frightfully distorted state the pelvis sometimes assumes.

Rickets and scrofula in early life, and mollities ossium in the middle or advanced periods of life are very frequent causes of deformity; some, indeed, are never detected until labour has actually commenced, which is effected by digital examination, or by contrivances made for the purpose of examining the pelvis at the brim. They are not much used in this country, and are more in vogue among our Continental brethren: the best known is Contoulli's pelvimeter, which resembles very much the rule with slide which is used by shoemakers for measuring the length of the foot; one end is introduced into the vagina until it reaches the promontory of the sacrum, the slide is moved until it is opposite the symphysis pubis, and then the antero-posterior diameter thus calculated. This may be applied and demonstrated very clearly in the lecture-theatre on a dry bony pelvis, but its value, to be of use, is only necessary in the lying-in chamber, and when labour has commenced and the soft parts are swollen and painful. The information thus elicited is found by experience to be of such a limited character that the finger seems to be the surest and most accurate method to be depended on.

There is another contrivance, which is the *compas d'épaisseurs*, or callipers of Baudelocque, and is intended to be applied externally to the woman's person. It consists of a compass, to the extremities of which are attached a curved arm, on the end of which there is a button; the

arms are divaricated so as to place one button on the symphysis pubis, just below the mons Veneris, the other button being placed posteriorly on the sacrum opposite the promontory. This, like the other instrument, is a very uncertain test as regards the true measurement, and in my opinion not to be depended on. When other bones of the body, especially those of the lower extremities, as observed by Naegele, are distorted by some constitutional disease, as rickets, mollities ossium, &c., and by the general appearance of the person, we may form a very fair reason for suspecting that the pelvis is also distorted; to what extent, however, can only be ascertained by digital examination, and, as I have before mentioned in another part of these lectures that one deformity nearly always predisposes to another, yet it must be borne in mind that because the spine may be greatly curved, the pelvis need not be necessarily affected, for it occasionally occurs that the pelvis is perfectly natural and of normal capacity when other parts are greatly distorted. Ramsbotham mentions such a case. The degrees of obstruction caused by distorted pelvis are classified in various ways by different authors. The brim, the cavity, the outlet may be the situation, as before-mentioned, and the obstruction is generally divided into three varieties—viz.:

1st. Those which will suffer the full-sized foetal head to pass entire.

2nd. Those through which delivery may be accomplished *per vias naturales* by means of premature labour, craniotomy, or mutilation of the foetus.

3rd. Those in which the degree of deformity is so extensive as to call for the Caesarian section, or the very early induction of abortion.

*Causes of Deformity of Pelvis.*—The various joints of the pelvis, like many other joints in the body, are liable to many forms of inflammation and their consequences—viz., ulceration, suppuration, and finally ankylosis, which occurs in the sacro-coccygeal joint, and is a most common obstruction in difficult labour in late marriages. Standing on one leg constantly, or one leg being longer than the other, tends to elevate one ilium, thereby placing the pelvis in an oblique position. Rickets, mollities ossium, constant sitting or standing in one position for a great length of time, excessive habitual horse exercise—Dr. Rigby mentions that frequent riding on horseback at an early age will produce contraction of the inferior outlet, even in the healthy pelvis, and that the females among American nations who over-indulge in this exercise bear few children, and are often three or four days in labour, owing to the contracted state of the pelvis.

Exostosis, tumours, fractures of the pelvis, caused by accident, falls, or otherwise, are also frequent causes of distortion.

*Treatment* depends greatly on the cause, and deformities in this situation do not interest us to the great extent that deformities do elsewhere, unless the matter of child-bearing is concerned, or unless it has attained such a great extent as to become apparent; for it must be borne in mind that very great deformity has often existed undetected until labour has actually set in; therefore the treatment seems in these cases to be more *preventive* than really curative, and when there is a constitutional tendency, great care should be observed, and active out-door exercise exchanged for the sedentary, &c.; constant change of position and attitude observed; if one leg is longer than the other, a thick leather sole applied to the boot until both legs are equal, good tonic medicine and nourishing food ordered, sea bathing. Treatment of these distortions by mechanical aid is a plan that ought occasionally be had recourse to, as some most ingenious instruments and appliances have been recommended from time to time. Where one ilium is considerably elevated, and the other being depressed, sitting on a sloping seat is a most admirable plan, the elevated ilium being placed opposite the inferior part of the inclined plane, and the depressed ilium opposite the upper part of the plane. Sitting in such a position for ten, fifteen, or twenty minutes at a time every day for a lengthened

period will have a wonderful effect in diminishing the obliquity and stimulating debilitated muscles into action.

Deformities of the sacrum and coccyx may be considered under this category, as both have a deforming influence on the pelvis; they not unfrequently are distorted, and produce (as can be seen by a visit to any anatomical museum), great deformity. Ankylosis of the coccyx with the sacrum is a most common occurrence after the middle period of life, particularly in women and in those who ride on horseback, also those who sit constantly, as dressmakers, milliners, &c.; it frequently causes most distressing labours; the bone is sometimes fractured, and this causes excruciating pain, particularly when the bowels are acting. This ankylosis may be met with as early as thirty-five, but mentioned by some authors as occurring later on in life; it frequently gives great trouble in the first confinement of a late marriage. Treatment very much the same as that of the pelvis, and generally more *preventive* than curative; and when the slightest predisposition is observed, everything should be adopted to prevent the deformity from increasing. As regards the treatment for pelvic deformity when labour has actually commenced, it is a matter that need not be much attended to at the time, as all attention, as a matter of course, will be directed to the happy and successful delivery of the foetus. Such treatment is entirely out of the scope of these lectures, and will be found at great length in works on obstetric medicine.

#### REMARKS ON THE USE AND ABUSE OF SPIRITS AND FERMENTED DRINKS IN ARMIES DURING WAR.

By Surgeon-General C. A. GORDON, M.D., C.B., &c.

(Continued from page 153.)

OUR Continental brethren observe, with regard to wine that it contains an agent (alcohol), which taken in excess becomes an absolute poison. It contains that agent, however, combined with other elements, especially nitrogen and carbon, in conditions which science is as yet unable to reproduce, but which render it a veritable aliment. It is observed also that populations which habitually use wines are not those in whom drunkenness, that curse of civilisation, prevails. Wine taken pure, says M. Morache, increases thirst instead of relieving it; but if diluted with water quenches thirst better than anything else; and such, I venture to assert, may be said in an especial manner of good sherry and iced soda-water on a hot day. Still quoting M. Morache, wine in moderation produces an impression of increased strength and muscular activity, it increases the functions of digestion. This arises partly from the effects of alcohol contained in it, but also from the introduction into the system of organic and mineral matters which act as aliments and as excitants of the nervous system. During the Prussian siege of Paris, in 1870-71, the good effects of a regular ration of wine were illustrated in a remarkable manner. In the course of that siege the daily allowance of food underwent a progressive decrease in quantity and quality, until after a time scarcely sufficient food was allowed to maintain life, and altogether insufficient to support the exertions demanded of those engaged in the defence. Throughout the whole period an allowance of wine was granted for each inhabitant, and I can speak from personal experience of the absolute craving felt for that beverage when food had become scarcest; famine, indeed, prevailed everywhere; still, famine fever was absent, a circumstance which has with every appearance of good foundation been attributed to the fact of wine being at all times issued to all classes of the population.

According to official regulations, the issue of certain beverages to the soldiers of the French army is authorised while they are employed on active service, but not

during times of peace, except on fête days, and formerly when the great annual inspection took place. Among those beverages are light wines, a quarter of a litre being sanctioned per man, at an expense to the State of 16,425,000*f.* per annum. (a) Among the other beverages are beer and cider in quantities of half a litre each, and eau de vie, of which the ration when granted is 1-32nd litre. During the hottest period of summer this spirit ration is granted for the purpose of "clarifying the water they drink," the distribution being made divisionally on the recommendation of a committee composed of the intendant, an army medical officer, and a civil practitioner. While on service, it is recommended in works on hygiene of the same army that a small quantity of spirits mixed with water shall be taken at night, especially if the nights are cold or humid. It is equally useful when bivouacking, or after forced marches, whenever the troops have been exposed to much rain, and in other circumstances in which it is necessary for the time being to set up the tone of the system; besides this, it is considered that a little spirits and water during hot weather conduce to digestion, being at the same time a wholesome beverage. Further, the regulations point out that undiluted spirits irritate the stomach and increase thirst, and that even in a diluted state they ought always to be taken during a meal, or with food. It is made a part of the duty of the medical officer to watch over the issue, and to see that spirits are diluted with the proper quantity of water—namely, eleven parts to one. Instead of pure spirits and water the following preparation is recommended for issue to the soldier—namely, 800 grammes of liquorice-root, four citrons, two litres of eau de vie, and twenty-two litres of water, the whole to be allowed to macerate during some hours, and supposed to serve as an allowance for eighty men for one day, at an expense of three centimes per head. This beverage is described as being particularly well suited for quenching thirst. According also to regulations, the eau de vie issued to the troops or sold to them in cabarets near the barracks must be the product of distillation of the grape, if it be possible to obtain it of that description. When from circumstances that is impossible, the intendants may issue spirits prepared from grain, juniper, or other natural products; but it must be of a strength equal to 47° of Guy Lussac's alcoholometer at 15° C. or 60° F. When wine is issued, the red is given in preference to the white; it is laid down that only those of good quality are to be given to the soldier, of a strength not less than 11 per cent. of spirit. It is also of some importance to mention in reference to recent discussions in this country in regard to sherry, that in France a special order prohibits the issue of *vins plâtres* to the troops. M. Morache (b) gives a reason for this objection. According to him, the alkaline phosphates and bitartrate of potash which exist in unplastered wine become through that process replaced by sulphates of that base, and in addition various salts become introduced by the process, especially chloride and sulphate of lime, the latter being soluble to a considerable extent in the wine. That issued to the troops is tested by means of chloride of barium.

Beer is considered, when taken in moderation, to be a veritable aliment by its alcohol, albuminised matters, and mineral salts. It probably acts as an antiscorbutic, but whenever indulged in or taken under unsuitable circumstances, it becomes directly injurious, chiefly by the lupuline contained in it. The strong beers of Strasbourg contain from 4 to 5 per cent. of alcohol, those of Germany from 3 to 4. Both descriptions are said to rapidly produce intoxication whenever indulged in, and further, are said, when freely persisted in, to destroy energy and courage, and to induce *brutishness*. The lighter kinds only are allowed to be sold to soldiers in France; but, unfortunately, the amount and nature of the beverages indulged in by the soldier of that country, like that of some others, depend more upon the primary means of the

individual than upon the regulations of his service. Intemperance is stated to have greatly increased in that army, especially in camps and quarters where the men have much time at their disposal. It is in an especial manner so among the old soldiers, and this circumstance forms one of the reasons adduced by General Trochu (a) against retaining men continuously in the ranks. He attributes this to the practice of issuing a daily ration of spirits to the men, a taste for "drink" being thus after a certain time established. In France, as elsewhere, the existence of the vice of drunkenness in the army is deeply deplored, and certain measures are adopted with a view to moderate it. Others are proposed, and among them it is noteworthy to find enumerated moral and religious instruction, utilising the spare time of the men, whether by work or by exercise, physical or intellectual. Strangely enough, however, it does not appear to be anywhere proposed to withdraw or prohibit the ration of spirits itself.

Throughout the winter of 1870-71 drunkenness prevailed to a great extent among the levies of National Guards raised for the defence of Paris, leading on the one hand, according to the belief of many, to military disaster, and on the other being, it was said, an important item among the circumstances that induced the high rate of mortality which prevailed towards the end of the siege. Vigorous attempts were made to check the prevalence of the vice. Organisations were established for the purpose of appealing to the moral sense of the men, and to induce them to bind themselves to total abstinence. The Council of Public Health issued a series of instructions with a view of impressing upon the troops the fallacy of the belief that the extensive use of spirits rendered them better able to withstand exposure to the severity of the season, and pointing out the greater risk of death from wounds in the intemperate than in the temperate. Much stress was laid upon the circumstance usually accepted as a fact, that in the War of Secession in America the use of spirits had been actually prohibited with the best results in regard to health and discipline among the troops; yet the Council of Health, so far from advocating the total prohibition of stimulants under all circumstances, expressed themselves thus: "After being on sentry in the cold and rain some warm soup, coffee, and tea with sugar, and to which a very small quantity of brandy or rum is added are the best kinds of drinks." It is to be observed that one of the most painful effects of the diminished supply of food in Paris was inability to maintain natural warmth; fuel had become next to unprocurable at the very time that the cold of winter was most intense; soup could only be had prepared from horseflesh, or from *stock* of even a still more objectionable nature, and really after a time tea and coffee, coffee and tea began to pall a little upon the palate; tea was dreadfully "filling," and as to coffee, the flavour seemed never to be out of our mouths. Under such circumstances, those of us whose principles were the most temperate were fain to indulge in a tumbler of hot spirits and water after turning into bed. It certainly restored the warmth of the body, and enabled us to enjoy a certain amount of comfortable sleep, which in the absence of the "night-cap" we could not have done, so painful was the sense of cold, however abundant the coverings we heaped over ourselves in bed.

With regard to the German forces during the Franco-Prussian war, I find that from the 6th of August, 1870—that is the date on which fighting began at the battle of Wœith—a ration of Brantwein, a spirit distilled from malt, was issued to them. This spirit was of a strength of 18° below proof; it was issued in the proportion of a sixth of a pint per man, mixed with an ounce of essence of bitter orange-peel, and drank without being further diluted, the Poles and East Prussians being credited with a remarkable "tolerance" of spirits. During the invasion of France the German soldiers were billeted upon the in-

(a) Morache, page 848.

(b) "Traité d'Hygiène Militaire," page 851-2.

(c) "L'Armée Française en 1867," page 86.

habitants, and this is the ration the latter were forced to supply to each of their guests—namely, 750 grammes of bread, 500 of meat, 250 of bacon, 30 of coffee, 60 of tobacco, 5 cigars, a demi-litre of wine, or a litre of beer, or a decilitre of brandy. Officers were supplied with cigars and *vin rouge*, both of superior quality. Here there are no indications of abstinence being practised among the Germans; nor is the scale shown by any means all that the unhappy French were forced to supply to the invaders. Every considerable town that lay in their road to Paris was “requisitioned” for supplies. Saverne may be taken as an example of what was thereby implied, the following list representing the quantities it had to furnish—namely, 10,000 loaves of bread of 3 kilos each, 60 bullocks of 250 kilos each, 8,000 kilos of rice, 1,250 kilos of roasted coffee, 750 of salt, 500 of tobacco, or 18,000 cigars, besides 750,000 kilos of *superior* cigars for officers, 10,000 litres of *vin ordinaire*, 3,000 of *vin rouge de qualité supérieure*, 2,000 litres of Burgundy, 200 bottles of champagne, 100 kilos of sugar, 25 of extract of meat, and full rations for the horses of the force entering the town. Everywhere tobacco, wines, and spirits were requisitioned according to a similar or even greater scale, although German physiologists might demonstrate scientifically that neither were necessary, nay, that they were all unnecessary, yet German staff officers continued their requisitions; German soldiers and officers indulged freely in them, regardless, no doubt, of *scientific* principles, and also of those principles which inculcate mercy and consideration for the poor and helpless everywhere.

Much has of late years been said and written anent the absolute prohibition against the issue of spirits by General Grant to the soldiers of the army of the Potomac. When one reads the instructions issued by Dr. Hammond for the preparation of a tonic of quinine to be issued as a prophylactic against illness in that army, I, for my own part, must be excused if, like my countrymen, “I hae my doots” as to what is meant by such absolute prohibition. The tonic in question is prepared according to the following receipt, and my readers will doubtless see for themselves wherein lies the difference between it and spirits: Half a barrel of whisky being drawn off into another cask, both were filled with a mixture of the bark of dogwood (*Cornus circinnata*) and wild cherry (*Cerasus scrotina*); after they had been dried in the sun, a few ounces of quinine were then added to each barrel, together with the dried peel of a dozen native oranges; of this mixture one or two ounces were given every morning and evening to each man, with the effect, it is stated, of lessening the relapses of fever. And so spirits were absolutely prohibited in the army of the Potomac!

The views entertained by American army surgeons in regard to the issue of spirits to the soldiers may readily be gathered from the work of Dr. Hamilton. (a) According to that work Dr. Mann speaks as follows: “My opinion long has been that ardent spirits are an unnecessary part of the ration; this allowance as part of a ration is not, however, the evil which demands a remedy, it is the abuse of spirits.” He further adds: “Sutlers, unrestrained as they frequently are, destroy more lives by these liquors than are lost by other causes to which soldiers are exposed, and so long as ardent spirits are permitted to be publicly sold in the vicinity of a cantonment these evils cannot be remedied by any restrictions under which sutlers may be placed.” These remarks are quite as applicable to our own army as to the American. It is not the ration of spirits of itself that effects the harm, it is the excess; and here in England all we have to do is to substitute the words “low public-houses” for “sutlers,” and the description is ours. At those periods of the revolutionary war when the army received no pay for their services, and possessed not the means to procure spirits, it was healthy, and it is added, “when the soldier is poor in money it is always the case that he abounds in health.” But that absolute prohibition is not intended of late years seems clear from special orders issued from Head

Quarters, Army of the Potomac, May 19th, 1862. That order declared that “upon the recommendation of the medical director an extra ration of one gill of whisky daily will be issued until further orders to every officer and soldier in this army, half to be served out in the morning and half in the evening.” How, therefore, it has become the fashion in this country to state that spirits were prohibited in that army I am unable to comprehend, except, as expressed upon the scroll in the hand of Shakespeare’s statue in Leicester Square—“There is no darkness but ignorance.” It is right to observe, however, that the order in question “was issued at a time when the troops had for several weeks been subjected to great hardships on long and fatiguing marches, in labour upon the trenches, in severe battles, in skirmishes and picket duty, in exposure to rains and malaria,” and when “sickness was prevailing to a large extent.” No wonder, then, that “by most of the army it was received as a boon, and by no commanding officer, so far as we are informed, was it refused.” (a) This extra allowance was subsequently withdrawn, but it does not appear that the men were deprived of the tonic already described. Dr. Hamilton questions, indeed, whether any real good followed the issue of the ration; indeed, he observes that “affections of the bowels were generally increased in severity and frequency by its use, while we never saw an example in which it had effected a cure.” No wonder, for who ever heard of whisky curing diseases of the bowels? Perhaps the true reason of the want of universal good effects is that given by Surgeon Price, (b) namely, that the ration was given without discrimination between those who need it and those who do not—“The men will be most likely to get the whisky ration when idle in camp; while on the march, when it might be claimed to be useful to the more feeble of the men, they will not have it; and at the end of a forced march the supply will be very certain not to be at hand.” Dr. Hamilton himself would under no circumstances whatever allow soldiers to have spirits. According to instructions published by the American Sanitary Commission, (c) “great care should be taken to guard against the excessive use of alcoholic drinks. It would be well for the young men in our services to make no use of these beverages except when they are prescribed for medicinal purposes.” (d) Again, “spirits should only be issued to the men after unusual exertion, fatigue, or exposure, and at the discretion of the surgeon. Those men who drink spirits habitually, or who commit excess in its use, are the first to fail when strength and endurance are required, and they are less likely to recover from wounds and injuries.” (e) By the same code of instructions, however, it is not alone spirits that are injurious when taken in excess: “Water should always be drunk in moderation, especially when the body is heated.” “Experience teaches the old soldier that the less he drinks (of water) when on a march the better, and that he suffers less in the end by controlling the desire to drink (water), however urgent.” (f) It thus appears that it is not alone against strong drinks that precautions are necessary—that water, even when undiluted with spirits, if taken in excess, is dreadfully dangerous. All things in moderation, at the proper time, and in their proper place.

#### REPORT ON SYPHILIS.

By C. R. DRYSDALE, M.D., M.R.C.P.L., F.R.C.S.E.,  
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DR. FOURNIER ON TERTIARY SYPHILIS (*continued*).

This forms the continuation of Dr. Alfred Fournier’s admirable lectures on tertiary syphilis, and of that part

(a) *Op. cit.*, p. 72.

(b) *Id.*, p. 73.

(c) “Military Medical and Surgical Essays.” Philadelphia, 1864.

(d) *Id.*, p. 26.

(e) *Id.*, p. 163.

(f) *Id.*, p. 164.

(a) “On Military Surgery.” New York, 1865.

which treats of the important lesions of the soft palate and pharynx of this formidable complaint. The notes are taken from a report by Dr. Pichard in the *Mouvement Medical* of the 18th July.

**Functional Disturbances.**—You remember how little functional disturbances were a marked feature at the period of formation and softening of the gummy tumour in the velum palati. They were so little so that the lesion was as if latent, and the patients at least scarcely disquieted themselves about it, and considered it as a simple sore throat of insignificant nature, so that the majority for the most part hesitated to consult a doctor for such a trifle.

Well, when the ulceration is accomplished, what is produced? If the ulceration limits itself to eating away the velum, attack it partially, without perforating it, or breaking it, the functional disturbances still remain but little in intensity—they remain what they were, with the exception of a slight addition of pain, a more or less marked augmentation in the difficulty of deglutition, and a notable increase in salivation. But the modification in the state of the symptoms is not striking; their intensity is simply a little greater.

If, on the other hand, the ulcer has perforated or divided the velum, then there takes place a truly visible change. Yesterday the disease was nothing, or almost nothing—it hardly disturbed the functions; to-day it is a profound disturbance, an intense disorder of two functions; two infirmities have come on at once, one of which is among the most annoying, the other one of the most disgusting. You shall judge for yourselves.

What is first of all singular in these disorders is their instantaneous appearance, their explosion as sudden as unexpected. They take place in one day or two.

What, then, are these functional disturbances? These are those which attend the division and perforation of the velum, whatever be otherwise the cause and origin of them. These disturbances, which you have already remarked, are two in number—1. Alteration of the voice; 2. Nasal reflux of the food, and especially of liquids.

1. **Alteration of the Voice.**—As soon as the lesion of the velum is accomplished the voice takes a nasal tone of a most disagreeable kind, becomes confused, and may even be no longer but with difficulty intelligible.

2. **Nasal Reflux.**—A portion of the food contained in the mouth escapes from the mouth and passes into the cavity of the nostrils to stay there or be rejected by the nostrils.

This reflux, rather rare and but little marked (generally at least) in the case of solid food, is more easily produced with liquid food or drinks, which, hardly taken into the mouth, partially return through the nose, and are thrown out by the nostrils. Constant in their production as regards phenomena symptomatic of rupture of the velum, these two functional disturbances are nevertheless very unequal from one patient to the other, according to the varying conditions.

Let us take two extreme cases to contrast them.

With a large perforation, and *à fortiori*, with an almost complete destruction, or complete destruction of the velum, these two disturbances of function attain their maximum of intensity. The voice is not only nasal, it takes on a very disagreeable tone, and, besides, is confused, the majority of the syllables are inarticulate, and often even the voice becomes so confused that it can scarcely be understood, and is almost unintelligible. Such is the case with a poor young married woman whom I am treating at this moment. She contracted syphilis from her husband at the early hours of her marriage, and was never treated, because she was ignorant of the disease she was affected with. Among other accidents she was affected with a gummy tumour of the palate, which has absolutely eaten away the whole velum, and which is not yet cicatrised. Her speech is so confused that I hardly comprehend her. Spite of all the attention I give to listen to her to diminish the grief she feels at not being under-

stood, I guess what she desires to say rather than I understand it. I hardly understand one word in ten.

In these same cases the disturbance of deglutition is excessive: foods of all kind penetrate into the nasal fossæ and remain there. If the solid foods are rather rarely rejected through the nostrils, it is not thus with the liquids, which flow back almost continually from her mouth and nostrils. The patients only avoid this double inconvenience by minute care, and by compelling themselves to eat slowly and watch the moment of deglutition, and by drinking little mouthfuls, laying the head back at the moment of swallowing, &c. Thanks to this kind of new education they impose on themselves, they come to be able to eat and drink well or ill; but they never, however, arrive at being able to conquer the functional disturbance which results from the absence or mutilation of the palate. A simple distraction of a moment, or a little hurry, suffice to produce the reflux. Here is what one of these patients lately writes:—"By force of education I have arrived at speaking, if not correctly; at any rate, at swallowing nearly like anyone else. I have scarcely any longer any difficulty in eating; but I am rather annoyed in swallowing. If nothing hurry me, if I am not absent-minded, all goes well; yet for all the world I would not dare to dine out, for I should fear evils for which I should blush. But if I am absent, if I am in a hurry to eat or drink, then my old infirmity comes upon me—thus, on coming home, I went into the railway station to take a glass of beer: I was swallowing it too quickly, thinking I was late; a part of the liquid returned in a gush through my nostrils."

Inversely, if the perforation of the velum is very slight, these same functional disturbances descend to their minimum of expression, and may even be wanting—at least they are extremely attenuated. The voice is hardly nasal in tone, solid foods are no longer regurgitated by the nasal fossæ, although liquids flow back, and even these only do so rarely and accidentally, or in a hardly appreciable manner.

Between these two extreme cases take all the intermediate terms as lesions and functional disturbances, and you will have in this way a picture of complete kind of what perforation or division of the palate can produce. It is not, however, the extent alone of the lesion of the velum which measures the intensity of the functional disturbances. This intensity depends on other conditions, all of which I cannot recount; but the principal appear to be the seat of the lesion, its form and age.

**Seat.**—The marginal ulcerations are much less influential for the production of such disturbances than central perforation. The destruction of the uvula, for instance, is quite inoffensive.

**Form.**—Perforations which are quite round are much more redoubtable with regard to disturbance of voice and deglutition than elongated perforations, or elliptical ones, &c.

**Age.**—The age of the lesion has also a marked importance. From the very first the reflux of drink is almost constant, whatever otherwise be the diameter of the perforation. This is due not only to the perforation, but also to the peripheral rigidity of the velum. Later on this reflux is infinitely less, which is above all due to the education of the patient in swallowing suitably in his now condition. It is useless to add that these attenuations of functional disturbances (especially in what concerns the voice) are only produced in cases of small or middle-sized perforation at most. These functional disturbances, on the contrary, persist if the perforation be extensive. They persist especially as far as the voice is concerned, which cannot be modified by education and surveillance as deglutition can.

The reflux of food by the nostrils and the alteration of the voice are the chief functional disturbances from perforation or division of the velum. But they are not the sole ones which these lesions cause. Some others remain for me to point out to you—namely, pain, salivation, and sometimes deafness,



Dulness of hearing and different disturbances of hearing (such as rumbling pains in the ear, &c.) sometimes accompany gummy tumours of the velum by propagation of the peripheral inflammation towards the Eustachian tubes. These are symptoms which we shall find repeated in treating of lesions of the pharynx.

Ptyalism is a symptom which is produced here, as it is in all wounds in the mouth; it presents nothing special.

Let us, then, only speak of the pain. You know how little painful the first and second stages of the lesion were. Pain comes on with the ulceration. This pain, in most cases, is either slight or medium (according to the extent of lesion). It consists in this: There is a feeling of constriction in the throat, constant, with slight smarting towards the isthmus faucium, with painful deglutition of saliva and food, and painful phonation. The patients are forced to choose their food. Often even (especially in the first period) they are reduced to nourish themselves on liquid food, soups, beef-tea, bread and milk, boiled eggs, &c. They speak little, and in a low voice; but in fine, they do not suffer much. This is the evidence given me by a patient who lost almost completely his palate in the campaign of 1871: "I did not suffer truly," he said, "I had a rather sore-throat, but that was all, and I attributed it to cold. If I had suffered, I would certainly have gone to the ambulance, but I was not obliged to leave my service;" and during this time this unfortunate man was losing his velum palati. There are cases, however, where the pain is very accentuated, although we cannot find the cause. Generally, then, it radiates towards the ear.

Such are the symptoms of gummy lesions of the velum palati.

Let us add, to complete the picture, the two negative tracts: 1. These lesions in general are not complicated by any enlargement of the glands. The absence of enlarged glands is the rule, the usual case; sometimes, however, it has been noticed that the perihyoidian glands were slightly swollen. 2. They do not awaken any general reaction. They never provoke any fever. All that is noticed in some cases, as regards disturbance of the health, is a certain degree of pallor and languor, caused less by the lesion directly than by the difficulty and insufficiency of the alimentation; and lastly, the moral condition of the patient on whom the onset of such unexpected and frightful symptoms is not without causing disquiet and great sorrow.

We have, gentlemen, studied one by one the successive stages of the affection: let us now put the disease together again, and study it as a whole. In a few words here is wherein it consists:—

The gummy tumour of the palate is composed originally of a pisiform or flattened tumour, solid, hard, without inflammation, which is developed in the thickness of the velum; we almost never are present at this initial stage of the disease. What we notice almost invariably among the first phenomena is a latter stage in which the affection displays itself in the form of diffused infiltration of the velum. The velum palati is then partly swollen, red, hard, thickened, and rigid. At this time there are few, or no functional disturbances—nothing more than some slight disturbances, and especially no pain. Then all at once the scene changes, as far as lesions and symptoms are concerned: Very rapid ulceration, attacking a more or less extensive part of the palate, perforating it, dividing it, destroying it in a more or less complete fashion, and that, I again repeat, with singular destructive activity, comparable in appearance to phagedæna; at the same time, sudden and unexpected explosion of serious accidents, two important functions (phonation and deglutition) injured in different degrees from one day to another, altered voice, nasal, and confused; nasal reflux of substances swallowed; pain more or less severe.

Such is the *résumé* of the affection which occupies us to-day.

Then, again, with regard to its progress, the disease is

divided naturally into two periods: 1st period. The future losses are being quietly prepared, without pain or any proportionate disturbance. 2nd period. The destruction, which is prepared all at once, is unmarked. And at the same time that these sudden lesions take place, intense disturbances take place in quite as unlooked-for a way. Insidiousness is then here the character which prevails, and about which the practitioner should be most on his guard, that which I have above all anxiously tried to bring out in relief and to make you rivet in your minds.

When the destruction we have just spoken of is accomplished, all is not over. Firstly, an ulcer remains on the parts destroyed. What is to become of this ulcer? If it were not treated, it would probably persist a long time, as we have noticed in several cases. Perhaps it also might extend. In any case, the experiment would be dangerous to make. All that I know is, that when treated, it generally is easily repaired, and quickly cicatrises. It cicatrises, you will understand, whilst leaving losses of substance almost always irreparable and proportional to the extent of the original gummy tumour. Often also, in certain conditions, it cicatrises only in a vicious way, and determines a series of phenomena known under the name of *pharyngeal atresia*, the fact we now speak of, and to which we shall again recur. Lastly, it is not rare for the cicatrix to take place only to become after a shorter or longer delay the seat of a new ulceration.

## INDIAN MEDICAL NOTES.—No. XXIII.

(FROM OUR SPECIAL CORRESPONDENT.)

SIMLA, July, 1874.

"ON LEAVE."

FALSTAFF, as melancholy as a gib-cat or a lugged bear, his voice lost by bawling anthems, vowed that if he grew great he would grow less, would shun sack, and live cleanly, as a nobleman should do: company—villanous company had been the spoiling of him. Badminton, riding-parties, dinners, dances—pleasuring, in fact, do not conduce to medical scribbling; thus it is some rarely put pen to paper, and never gratify their critical enemies by writing a book. Thanks to Dr. Bryden, the opportunity was afforded of gleanings much information if other attractions had not existed. Perhaps on return to sickness in the Plains the work at Meerut may, indeed, I fear *will*, supply ample materials, and health permitting, the best endeavour will be made to put before the reader the teachings of experience: for men may come and men may go; one will succeed, another fail in the combat with Indian diseases, many of which are as virulent and intractable as of old. There are still many things to be noted concerning the causes of sickness, and as the painter prepares the canvas, sketches the outline, then generally adds the figures, let me refer to Dr. Cutcliff's Report, which at last, after long seeking, comes under notice. In his investigations in the Meerut district in 1867 and 1868, about 140 towns and villages were closely examined to discover that sub-soil, soakage, lodgment, and stagnation of water, with insufficient drainage, aggravated malaria. One village would have a large sheet of surface-water, the soil light, sandy, porous, no quagmires, drinking-water good, canal irrigation partial, well-water not materially affected by the canal, village neat and comparatively comfortable, people healthy, robust, cheerful, and happy. Elsewhere would be large sheets of water, soil clayey, dark, sticky, retentive, quagmires, swamps, drinking-water bad, canal irrigation general, levels of well-water raised, villages dirty, untidy, people sickly, sullen, depressed, discontented, stagnant water, excessive vegetation, closely packed trees, shrubs, and grass preventing perfusion of air, dirt, filth, excreta, stinking ponds with filthy banks, or covered with green slime, oleaginous coating on surface of wells, enormous frogs floating therein, miserable



mud huts surrounded by bones, putrid carcasses, human ordure raked about by pariah dogs or loathsome swine, the men dull, stupid, cadaverous, lanky, often impotent, frequently with enlarged spleens, the women careworn, the children pot-bellied, no sounds of pleasure or activity heard in the bazaars, the only visitor the tax-collector. Such were some of the localities visited by Dr. Cutcliff. Where the canal-water was properly used for irrigation, not escaping or stagnating, where air was unimpeded the fever was less intense. Prisoners in gaols enjoyed immunity; railway officials at one place, and horse-tenders in another, before drains were cut in the lands, all suffered during the rains; their duties had to be performed by others, and medicines sent round in horse-buckets. Arsenic, atees, neem, chiretta did very little good compared to quinine; nor the native nostrum of slitting a live pigeon open through the breast so that the lateral halves flap on each side of the patient's head.

The fever so partial to water-courses and low swampy villages was oft remittent, associated with rheumatic pains, enlarged spleen, jaundice, dropsy, hepatitis, fatal diarrhoea, was either typhoid or malarial—let me add why not typho-malarial?—the type of fever to-day at work. The cattle suffered similarly, the large intestines and stomach, but not the excreta, containing red thread-worms half-an-inch long, the symptoms being listless lassitude, no appetite, stretched distended skin, rough coat, the loose folds about the throat swollen, oedematous pitting on pressure, aphthae of the mouth, diarrhoea, brown earthy motion, loose, offensive, mixed with a watery mucous fluid, sometimes bloody, the eyes dull, staring, naso-pharyngeal membranes dry. The weak were perfectly prostrate, the strong tottered with difficulty, yet the breathing was tranquil. Running on six days, the disease not considered contagious, terminated fatally by exhaustion or diarrhoea. In certain places the inhabitants developed gastro-enteric symptoms, painful abdominal distension, nausea, bilious vomiting, redness or softening of membranes lining alimentary canal, enlargement of intestinal glands, congestion of liver, engorgement of spleen. Meerut city was found above the average in cleanliness, brick-fields and kilns and much cultivation noticed, also new gardens by the gaol in stiff clay-soil required drainage. In the district, between November and March, 73 vaccinators, traversing 20,907 square miles, to protect against their wish a population nearly half that of England and Wales, do their best to modify a disease which scarcely any infant escapes. Births and deaths were reported by an illiterate sweeper to a native paymaster who lived eight miles off on a Dundreary system of totting on the fingers; and if the old ladies and female children did not come right, what matter? The cooking of statistics, an art of beautiful simplicity, is by no means a modern invention. Amongst the usual suggestions of drainage, sanitation, clearing of low jungle and high grass, opening of tree-forests, together with comments on crops, levels, streets, court-yards, cess-pits, Dr. Cutcliff recommended the free planting of chestnut-trees. Closing this interesting report, let me remind the reader that the author died just as his feet were on the ladder of success. Drs. Cunningham and Bryden are still working away, and though as yet I have not had the pleasure and privilege of meeting the former, his books and researches are and will be always eagerly demanded as the most valuable teaching of the day.

In a newspaper it is stated that arsenic, opium, aconite, dhatura, nux vomica, corrosive sublimate are freely used to poison men and beasts, and that for a pittance in the bazaar a pound of white arsenic, sufficient to poison 1,400 persons, may be openly purchased. Also at Bangalore, in 1873, no less than 2,083 cobras were destroyed in the presence of Dr. Nicholson, mostly in May and June. Elsewhere it is mentioned that the income from sweepings of latrines at Meerut formerly amounted to £50 a year. For any man who has the leisure it would be curious to compare the Indian diseases of to-day with those fatal in England long ago, when our kings drank hard, nobles lived in hovels and had neither vegetables, tubs, nor soap, and,

above all things, the comfort of tobacco. King James, taxing the latter said, if the devil came to dinner he should have a pig, a pole of ling and mustard, followed by a pipe of tobacco. Charles the First, a non-smoker, had in prison tobacco puffed in his face; and Oliver Cromwell, who trampled down the crops and raised the tax, was buried by soldiers puffing vigorously in derision. When England was a swamp, infested by wild beasts and robbers, there died of dysentery Prince Henry, son of Henry the Second, King John, Edward the First, Henry the Fifth, Cardinal Wolsey, Earls of Leicester and Essex. Fever killed the Earl of Gloucester, Henry the Eighth, Cardinal Pole, James the First, Oliver Cromwell, Charles the Second, a daughter of Charles the First, and Villiers, Duke of Buckingham. Amongst those illustrious in India, a reference to the standard inimitable writings of Sir John Kaye tells how Lord Cornwallis, thrice appointed Governor-General, died of dropsy, aggravated by bad food and worse water, on board ship; Sir John Malcolm, struck with paralysis, and Elphinstone, in green old age, died suddenly, both in England. Laurence, Neill, and Nicholson were shot; Burnes and Conolly butchered. After thirty-eight years' unbroken work under an Indian sun the seeds of malignant cancer commenced to torture Sir Charles Metcalfe—the ulcer of the cheek irritated by the climate of Jamaica; the agony of caustics, for instance, chloride of zinc, led to no good results—the right eye destroyed, the left useless, the jaw fixed, yet, in spite of pitiable pain, he continued unflinching at his work, ever cheerful, never complaining, fully sensible that Sir Benjamin Brodie and Mr. Pollock had exhausted human skill: a peerage came too late, for death relieved from suffering the first and last Lord Metcalfe. Just now universal sympathy is felt in India for that gallant soldier Sir Henry Tombs, and the earnest hope entertained of his restoration to health from a bed of sickness to wield again that good and trusty sword for merry England.

#### THE CORRELATION OF MEDICAL POOR RELIEF AND PUBLIC HEALTH ADMINISTRATION. (a)

By HENRY WILDBORE RUMSEY, M.D., T.C.D., F.R.C.S.E.

THE connection between the medical care of the poor and the public exercise of preventive medicine was traced, however imperfectly, by myself, in the second and fourth of my "Essays on State Medicine," and all subsequent events and discussions have seemed to confirm the principles which I then ventured to lay down and the practical conclusions which I drew from them.

Having shown that scientific inquiry is the indispensable basis to sanitary administration, I then mentioned that there were THREE classes of official agents necessary to the collection and compilation of the facts to be subjected to the higher processes of scientific analysis and induction—namely (1) The medical attendants of the sick poor, under the Poor Law; (2) Medical officers of health under the Public Health Act; (3) The registrars of births and deaths.

Of the last-mentioned I need say but little on this occasion, for the *status* of the department of vital statistics has never been seriously threatened, and the general register office is now brought fairly into co-operation with the central sanitary authority. Since the establishment of that department in 1837 it has undergone a succession of administrative amendments, another of which, making registration compulsory, has just received the sanction of the Legislature. The yet required adjustment of the local machinery of registration with that of medical relief and of disease prevention will be noticed hereafter.

I proceed at once to remark on the employment of the Destitution Medical Staff in health administration; and I would meet a preliminary difficulty, arising from the fact that a very large proportion of sickness among the

(a) Read at the Annual Meeting of the Bristol Medical Association, August, 1874.

poorer classes, and in towns by far the largest proportion, does not come under the care of the district medical officers under the Poor Law. This, however, is an argument rather against the fragmentary and irregular, yet complex character of our various social arrangements for medical relief, than against employing the legally appointed medical visitors of districts as sanitary officers. It is an argument for charity organisation, and for bringing all institutions for the treatment of the sick poor, whether legal, charitable, or provident, under a combined system—a reform for which we must look to the future.

Whenever effected, so far from checking or depressing charitable and voluntary efforts, some sort of consolidation might so regulate, extend, and improve them as to diminish materially the present cost of relief under the Poor Law.

Within ten years, however, after the introduction of the new Poor-law arrangements, the abuses of the system were so flagrant that it became a question whether it were not advisable that all medical action, even in the mere relief of disease, should be removed from the administration of the destitution authorities, and whether those authorities might not be advantageously restricted to the provision of relief in money or kind, leaving the higher question of the cure and prevention of disease to purely sanitary authorities. I believe that Mr. Ceely and I were the first to bring this question formally before a committee of the House of Commons in 1844. That very able and philosophical statesman, the late Sir G. Cornewall Lewis, though not advising the immediate adoption of our proposals, admitted the reasonableness of our principle and the possibility of working it, while he used it as an argument against what has been attempted by inferior men since his time—viz., the constituting a medical department under the Poor-law Board. Although we were defeated in that effort, its principle has never been lost sight of; but the firm hold which forty years of Poor-law administration has given to a medical system, wrong in its foundation, renders the practical application of our theory a task of much greater difficulty now than it would have been when first laid before Parliament.

Here we are, then, saddled hopelessly with the Poor-law Board as masters of the position. The change of name into Local Government Board has not altered their nature. The building of the new administration of sanitary law upon the foundation of the old destitution department was from the first a doubtful expedient, and it has proved to be a fearful, if not an irretrievable mistake. The natural (and to some extent necessary) connection between destitution and sickness, and measures for their relief and prevention, by no means rendered it necessary that the Poor-law Board should be placed at the head of public health administration. The so placing that Board is a striking instance of what Matthew Arnold called the "Philistinism," which prevails in our social and political institutions, the coarse *ungeist* which stifles, corrupts, and debases our public measures.

But the thing was done because it seemed so easy. *Facilis descensus Averni, sed revocare gradum superusque evadere ad auras. Hoc opus, hic labor est.*

The question practically now becomes this: Is it possible to infuse into public administration, even under this Philistine board, a higher, a more free and noble spirit, by allotting to the physical sciences and to their exponents in the medical, chemical, and engineering professions a more influential and independent position? Is it possible to liberate those professions from the tyranny of the legal and official traditions—the red-tape bondage—of Gwydyr House? In reply, I say that we must begin with the basis of the Civil Medical Service, that numerous official body to which is committed the care of the sick poor in districts and public institutions.

The custom, now universally established by law, of assigning fixed salaries to the medical attendants of the poor is in reality an obvious recognition of the sanitary or preventive character of their office, otherwise they

would be paid merely for the sickness they relieve, and would have no material interest in preventing disease.

A full record of the sickness and accidents relieved at the public expense would therefore be the first element of a public registration of disease, applying equally to epidemic visitations and to sporadic attacks, and specifying the local conditions, the personal relations, and the topographical and physical circumstances connected with the loss of health.

The machinery for such a registration (as far at least as the poorer classes are concerned) is at hand, and always available; hitherto it has not been fairly utilised in Great Britain; but in Ireland, under the Medical Charities Act, the records of disease have long proved a most valuable aid to public administration. The corps of medical officers in England only requires to be placed in a similar position to that which it occupied in Ireland under a public dispensary organisation with sanitary authorities.

I hardly need occupy your time by suggesting those particular modifications and amendments in the periodical returns of the union medical officers which would fit them for the purposes of scientific registration without diminishing their direct utility in affairs of local management.

The honoured names of Liddle, Dundas, Thomson, Ballard, Richardson, Kansome, Philipson, Lewis, and many others will occur to those present as authorities on the subject, who from time to time have shown how the crude lists of the sick made by the union medical officers might be corrected, amplified, extended, and completed in readiness for the next stage in the process—namely, revision and analysis in the first place by chief officers of health, and finally, by the medical department of the central authority.

The same forms in an extended registration might apply as well to dispensaries and other public institutions, including mutual assurance societies, as to the district medical officers. In the last of a series of papers on this matter which I published in our journal for March, 1872, I ventured to enumerate the several particulars to be returned and the methods of entry, and to this I beg to refer my hearers.

I now proceed to say a few words on the *value* of the union medical officers as sanitary inquirers of the first instance. Testimony has been borne to that value by many eminent persons of different opinions in other matters—for instance, Mr. Chadwick himself, in the General Sanitary Report of 1842; numerous well-informed witnesses before the Parliamentary Committee of 1844; Mr. Simon, on several occasions, especially in his Report of 1849 to the Civil authorities of London; and the Rev. C. Kingsley, and others before the Parliamentary Committee of 1854, all showed how easily and properly the officer appointed to attend the poor might inquire into and report on the facts concerning the origin and propagation of disease among those committed to his charge; how advantageously he might act as the health adviser of the poor; how well-informed he must necessarily be respecting the locality of their dwellings, the condition of their apartments, their food supply, the physical management of their children, their nursing in sickness, and the effects of their occupations.

In this view of the case the sanitary qualification of the union medical officer becomes a question of vital importance. In Ireland an excellent opportunity for complete preparation for official duties is ensured by a regulation preventing the appointment of any medical officer to a dispensary under the age of 23 years, thus affording to the candidate two years for further study or for practical work under supervision, as assistant to a dispensary officer or house-surgeon in a hospital, after obtaining his licence to practise.

For such reasons many of us desire to see a special qualification required of all public medical officers of whatever class. There is no reform which would so certainly promote the greater efficiency or raise the status

and remuneration of the union medical officer as the possession of a special qualification in addition to the ordinary licence.

The mere inspector of nuisances, as he is called, must be a comparatively useless person, unless acting in official concert with a well-qualified medical officer. I assert unhesitatingly that the mode of regulating the joint and separate action of these two classes of officers (medical officers and nuisance officers) deserves a much more careful consideration than has been hitherto given to it by the central authority.

Some sort of domiciliary visitation for hortatory purposes, when possible, would make the dispensary medical officers missionaries of health in their respective districts; and in this noble calling they ought to be aided by a well-instructed and efficient body of *nurses*, such as recent philanthropic efforts lead us to hope may ere long be at work in most populous districts.

Again, it has been often a question whether the dispensary medical officer ought not also to be, *ex officio*, the public vaccinator of his district.

I am aware that the tendency of official inspection has been to separate vaccination on the one hand from preventive medicine, to which it certainly belongs, and on the other hand, from medical relief, with which in execution it is most conveniently connected, and to make the public vaccinator an isolated special officer, acting for the most part in a larger district than that generally committed to the union medical officer, and at all events without reference to the duties of medical or sanitary visitation—one alleged reason for this course being that the amount of population required to maintain an effective succession of vaccine virus may be larger than that ordinarily contained in a medical relief district.

But whatever may be the theoretical advantage of a somewhat larger area for vaccination, I believe that a diminution in the number of public vaccinators has not seldom been felt to be a serious obstruction and hindrance to punctual and prompt vaccination.

In the opinion of most who call for a general revision and adjustment of *areas*, the districts for medical relief ought to be either identical with, or divisions of, districts for the registration of births and deaths, public vaccination, house inspection, and minor sanitary reports. With the increase of population the difficulty raised by the too great limitation of vaccination districts will naturally diminish.

I am well aware that no such unification as we propose for the minor districts with rectified boundaries could be suddenly made; but I am satisfied that the required changes might be gradually and judiciously effected with much advantage to all the purposes of local administration, and with great saving of labour to the higher authorities. This is a reform of immense importance to the public welfare and convenience, and it ought to be vigorously supported by the medical profession; and it is also justified by the system established and at work in Ireland.

Those who know anything of my labours on the health officer question need not to be informed that I have long and consistently urged the great importance of those objects which are to be attained only by the employment of a higher order of medical officers of health over county combinations of districts as superintendents debarred from private practice.

But I always advised that they should be systematically aided by the great body of the medical attendants on the poor, acting as deputies. This condition has been distinctly supported by the joint committee of this and the social science associations.

Now, supposing that there are somewhat more than 3,000 union medical officers, and that about 100 superintendents are required for England and Wales, the average number of the union officers acting with and supported by each superintending officer might be more than 30. In my judgment it is very important that vacancies occurring among superintendents should be filled up by

the union medical staff, some of whom in each combination of districts would almost certainly have distinguished themselves by meritorious services, and would be duly prepared both by preliminary studies and by special experience for the inspecting duties of the larger sphere. On this scheme of organisation, not at present sanctioned by Government, there would be added to the ordinary motives for excellent performance of duty an honourable desire for promotion to the superior grade, encouraging self-improvement in special knowledge and a pursuit of science concurrent with the pursuit of duty.

In the legislative project which ended in the Public Health Act of 1872 the Royal Sanitary Commission made a very serious mistake in one direction; a considerable portion of the sanitary party made, in my humble opinion, an equally great mistake in another. The former pointed out the union medical officers, without any improvement in their *status* or qualification, as the proper sole officers of health in *rural* districts for reasons which merely justify their appointment as deputies; the latter objected to their being employed at all as officers of health, partly because they were not sufficiently independent in their professional position, and partly because many of them did not possess sufficiently high qualifications for the more difficult duties of the office.

The Local Government Board, unable to perceive the true solution of the difficulty, and rejecting medical counsel, sanctioned one defective plan here, another defective plan there. Those who wish to enjoy a trenchant, racy, and truthful *exposé* of the doings of the Local Government Board under Mr. Stansfeld should read Mr. Brudenell Carter's able address to the London Medical Society, on "The Waste of Life by Preventable Disease." (a) Suffice it now to say that in many districts of the kingdom we see the union medical officers acting alone in their respective districts, without in formation from the medical residents, and without performing the higher functions of comparison and analysis of facts, or drawing general conclusions as to causes and prevalence of disease, or instituting proceedings against the more influential factors of those causes; in other districts one of their own number is selected to act not only in his own original district, but in those of his neighbouring colleagues, who very naturally resent the intrusion; in other districts again, private practitioners out of office, yet rivals in practice, are appointed; while elsewhere certain large, irregular, and ill-formed combinations of districts are superintended without local aid by skilled experts debarred from private practice.

There is, however, a modification of this last plan which deserves candid consideration—viz., the appointment of consulting physicians or surgeons in hospital practice for special inquiries and inspections, for each of which a distinct fee might be paid, the ordinary duties of health officer being left to the local officers.

The various arrangements admit of very different relations with the inspectors of nuisances, and none of them as yet provide for systematic co-operation in the registration of sickness and sanitary inquiry.

But, if the Sanitary Commission and the Local Government Board had perceived that the proper sanitary functions of the union medical officers, though distinct, were yet quite reconcilable with the proper sanitary functions of superintending officers of health, and that the two official classes *must* act in every district, the Public Health Act would not have proved a failure in the medical department of its administration; the facts of disease and death would have been duly recorded and returned by the registrars and by the dispensary officers and vaccinators, the careful visitation of dwellings with preventive advice to their inmates would have been conveniently accomplished, the statistical returns of the medical officers of health, "being based on an uniform system," would have been full and accurate, while the facts recorded would have been analysed, grouped, and,



if necessary, verified by the superintending officer, his summaries and conclusions being reported to the authorities, whether central, combined, or local.

I cannot avoid protesting in this place against the course adopted by the Central Board (*a*) in recommending that the crude, incomplete, and uncorrected weekly relief returns made by the union medical officers should be handed over to the clerks of unions to be copied for the use of the officers of health without revision or explanation, or any pretence of remuneration to the original contributors, a course both unjust to the latter and delusive to the public.

In conclusion I must remind my readers that the greatest obstacle to correct sanitary administration has been the absurd statutory distinction between *urban* and *rural* districts and authorities, a distinction which was at once shown by our joint committee to be indefensible and unwarrantable, and which has caused most of the anomalies and difficulties encountered in the attempt to carry out the Public Health Act, a distinction which, I also regret to add, is clung to with a desperate and stolid tenacity by the present Government and its legal advisers, and by which they have succeeded in spoiling the sanitary measures of the late session for both England and Ireland.

## American Communications.

### REPORT ON PHYSIOLOGY, MATERIA MEDICA, AND THE PRACTICE OF MEDICINE. (*b*)

By N. S. DAVIS, M.D.

PERHAPS the chief improvements or additions to our knowledge in the department of physiology during the year ending April 1, 1874, are such as relate to the functions of the brain and nervous system. The experiments of Fritsch and Thitzig, Nothnagel, Fourney, Ferrier, Dupuy, Carville, Bartholow, and others, for the purpose of determining more definitely the functions of particular parts of the brain, have attracted much attention. The novel methods adopted by these experimenters, consisting in some instances in the injection of distinctive substances, coloured with aniline, into the substance of the brain; and in others in the application of electric and galvanic action to limited portions of the cerebral hemispheres, and the striking results that followed, were thought by many to have brought a new era in the development of cerebral physiology, and to have overthrown many of the opinions hitherto regarded as well founded. Up to the time of these recent experiments it was supposed that the grey matter of the cerebral periphery, being the seat of mental perception, was not amenable to direct excitation by stimuli. But when Ferrier laid bare the surface of the convolutions and by applying his blunt electrodes, induced with readiness and apparent uniformity certain muscular movements, according to the convolutions touched, it appeared to demonstrate not only sensibility of the cerebral surface to stimuli, but also the special localisation therein of motor functions. By the subsequent investigations of Dupuy, as detailed in his inaugural thesis, it is shown that the faradic currents used by Ferrier could not be restricted to the peripheric layer of the brain, but they readily penetrated to the striated matter and central ganglia, and therefore produced their effect on muscular movements by direct excitation of these deeper seated parts. M. Carville, in repeating the same methods of investigation, more especially with the animals experimented on under the influence of anæsthetics, obtained results confirming the views of Dupuy. Very recently Dr. Bartholow, of Cincinnati, availed himself of an oppor-

tunity to perform a limited number of experiments on the brain of a patient, a large part of whose skull had been removed by disease in such a manner as to leave a considerable extent of cerebral surface bare, including portions of both hemispheres.

The mode of experimenting differed from that of Ferrier, chiefly in the use of fine needle electrodes penetrating the brain substance, instead of blunt ones resting on its surface. The results in producing muscular movements corresponded closely with those obtained by Ferrier on animals. And when during the third experiment the faradic current was rendered more intense, decided epileptiform convulsions ensued. While the results of these few experiments on the human brain correspond closely with those obtained by Ferrier, yet they are still more amenable to the objections made by Dupuy and Carville, because in making a subsequent post-mortem examination Dr. Bartholow found his needle electrodes had penetrated from one to one and a half inches into the cerebral substance. The whole history of experimentation involving the injury or mutilation of animals, for determining the functions of any part of the nervous system, shows that conclusions must be drawn from them with great caution. From a careful review of all these recent and highly interesting experiments their combined results appear to confirm the previous views concerning the functions of different portions of the brain, instead of overthrowing them. And if they have added anything to our physiological and anatomical knowledge it is in indicating more definitely the exact points of localities in the periphery, where the striated fibres forming the medium of communication between the central ganglia—as the corpora striata and optic thalami—and the grey matter of the convolutions touch the latter.

We had regarded these results of previous physiological experiments in connection with many pathological phenomena as sufficient to indicate clearly a primary centre for ordinary sensation in the optic thalami, to which impressions from all points of the body are transmitted by one set of nerve filaments, and from which they are transmitted to some point in the periphery by some of the white fibres intervening between these bodies and the grey matter of the convolutions, when the impressions are mentally recognised, and the resulting volition is sent from the same part by another set of white fibres, first to the central ganglia represented by the corpora striata, and thence to whatever set of muscles are required to obey the mandate of volition. Instead of indicating any new functions in the convolutions, or spinal organs of muscular sense, the recent experiments have simply indicated more directly the particular convolutions in contact with the conducting fibres communicating through the common centre with particular sets of muscles.

The observations of Dr. Eichorst (see *Virchow's Archiv.*) on the degeneration and regeneration of cut and injured nerves, are interesting and important. They were made on the nerves of rabbits, and appeared to establish the fact that cut and injured nerves first exhibit an accumulation of granular matter, increasing the bulk which appears to arise from a breaking up or degeneration of the medullary matter of nerve. The sheath, of Schwann, and the perineurium become swollen from serous transudation, while the axis cylinders remain but little changed. During the second week these exudative and degenerative changes gradually disappear, and the process of regeneration becomes visible in the form of delicate and slender threads running into and extending from the injured end of the nerve. The reparative action is observable at the end of the second week, and continues several weeks before it becomes complete. Dr. Eichorst made no observations in regard to the time required for the nerve function to be restored. But from the slowness of the reparative process, as well as from other recently observed facts, it is rendered probable that those cases of apparent speedy restoration of function after injury or excision of nerves reported by surgeons have been instances in which the parts received nerves from other sources.

(*a*) See circular letter signed "J. Lambert," and dated March 23rd ult.

(*b*) Read before the American Medical Association, and referred to in a former number.

While I would not discourage investigations in any direction, or in any degree undervalue the importance of a correct physiology of the nervous structures entering into the human body, yet I am strongly impressed with the idea that we are attributing too much to nerve influence, and too little to the influence of properties inherent in all living structures. We have come near to the standpoint of referring all impressions, healthy and morbid, to a primary reception by some part of the nervous system, and as a consequence, of regarding all vital actions as in some way dependent on nervous influence. In this we are confounding nerve sensibility and nerve force with properties that are inherent in living organic matter, and are as clearly appreciable in the primary germinal cell, or granule of bioplasm, as in the most highly organised nerve structure. I do not allude to vitality or the abstract principles of life, for it is doubtless beyond human comprehension. Imparted primarily by the Creator to matter in certain modes of combination, and perpetuated by parent to offspring throughout the whole domain of organic nature, both vegetable and animal, it stands in its relation to the human mind as an ultimate fact, incapable of further analysis or explanation.

But when matter is thus endowed with vitality it possesses certain properties that can be studied and comprehended as readily as we study the properties of inorganic matter. It is as easy to demonstrate that the germinal cell of the ovum or the acorn possesses a susceptibility to the presence of certain exterior agents, as heat, moisture, electricity, and a peculiar affinity by which it elects and combines with certain atoms of matter and rejects others, thereby affecting determinate changes that we call growth, as it is to demonstrate that an acid will unite with a base, or that the presence of a second acid will cause the rejection of the first and the formation of a new compound. Susceptibility and vital affinity are properties common to all living organic matter, whether in the primary germinal specks of a bioplasm or in the most complex structures of the human body. And they exert a controlling influence in all that relate to molecular changes in assimilation, nutrition, disintegration, secretion, and, as a consequence, in the evolution of caloric. These properties are capable of being modified or acted upon directly by all those pervading forces, sometimes styled imponderable agents, such as electricity, heat, light, &c., and by the presence of many alimentary and medicinal agents. They are in no sense derived from the nervous structures, and can be modified only indirectly by nerve influence. Every system of physiology which does not recognise these elementary properties of all living matter as distinctly as it does the special functions of each organised structure will be found defective. Not only will it be defective as a branch of science, but as the basis or point of departure for the study of pathology, it will continue to involve us in doubt, obscurity, and false conclusions.

**Materia Medica.**—The past year has not been made notable by the discovery of any new and valuable article of the materia medica, or by new applications of old remedies of such importance as to be worthy of special mention. What we most need, however, in this department, is not the addition of new articles or new applications of old ones, but a more complete knowledge of the composition and properties, with a more exact appreciation of the *modus operandi* of such as are already on the official list. The progress of organic and analytical chemistry, and its application to the investigation of the composition and properties of medical agents, is constantly separating out the active principles and presenting them for use in more convenient and reliable forms, but most of our methods of testing the effects of medicines on the various functions of the human body are extremely defective. So true is this that the most diverse opinions still exist concerning the action of many of the oldest and most frequently used articles of the materia medica. And not a few of them—like opium, quinine, alcohol—are commonly regarded as capable of exerting directly opposite effects by simply altering the dose. That is, we are told that in small doses

they are stimulant or tonic, and in large doses sedative or narcotic, but at what point in the progress of increasing the dose the action becomes reversed, no one appears able to point out with exactness. Perhaps in no other department of medicine do we find opinions and conclusions derived from investigations so partial or incomplete; and the adherence to names and classifications involve so much confusion. It is to this condition of our materia medica that we owe many of these apparently contradictory modes of practice, which have done much either to create scepticism, both in and out of the profession, or to fasten the theory that the type and character of diseases change with the cycles of time. The idea that the special type and character of diseases have undergone marked changes, and are far less active or sthenic now than in the earlier part of the present century, has become very general both in and out of the profession. And this is alleged as a reason for the change in practice from depletion and antiphlogistics to nourishment and so-called stimulants. But if we analyse more closely the development of opinions and modes of thought, as presented in the medical literature of the last half century, we shall be forced to the acknowledgment that the idea of change in the character of diseases has followed rather than preceded the changes in the modes of practice, and that it really has no other appreciable facts on which to rest. In other words, it will be found to have been a simple theoretic idea, suggested to avoid the difficulty and scepticism arising from such various and apparently contradictory modes of practice.

We say *apparently contradictory*, for it is not certain that a more careful review of the *modus operandi* of the remedial agents used would not show the most diverse in appearance to have really reached the same end by different routes. For example, on the assumption of the chronic physiologists that alcohol is respiratory food, acting as a stimulant to the organic functions and sustaining the temperature of the body, nothing could appear more opposite than to treat one case of fever or acute disease with arterial sedatives, evacuates and alteratives, and another case of the same disease with alcoholic liquids and nourishment. But when we turn from the theoretical assumption to the results of positive experimentation we find the ingestion of alcohol to be followed by a reduction of temperature, a retarding of capillary circulation and molecular change, and a diminution of nerve sensibility. In other words, we find the *assumed* stimulant to be a positive and universal *sedative* to organic and molecular changes and anæsthetic to nerve sensibility.

Hence the practitioner who plies his patient freely with wine, whisky or brandy, is as certainly holding him under the influence of a powerful sedative as was his ancestor who bled and physicked, or his contemporary who gave veratrum and alteratives; and we need resort to no supposable change in the type of disease to understand why all, if wielding their weapons with equal skill, arrive at very similar results. As already intimated, there is no other department of medicine that so urgently needs a thoroughly critical and experimental revision as our materia medica. The work should be carefully planned and persistently pursued until the erroneous phraseology is corrected, and the mass of speculations and mere assumptions are replaced with positively observed facts.

The pendulum of professional opinion and practice has swung from one extreme to another with almost as much regularity and certainty as if moved by the force of gravity. During the first half of the present century professional practice had reached the extreme of depletion and evacuates, when, checked by its own abuses, the return wave carried us in the short space of three decades first to conservatism or expectancy, and then to full stuffing and so-called stimulation, until wine, brandy, and indiscriminate nourishment were made the instruments of abuses no less injurious to the human family than blood-letting and evacuates in their palmiest days. This last swing of the professional pendulum has just reached its widest divergence from the perpendicular, and one of the most grati-

fying evidences of progress in practical medicine the past year consists in the plain indication to be seen in various quarters, that the pendulum has fairly commenced its return motion. The constantly increasing importance attached to fresh air, pure water, and frequently ablutions in the sick-room; the more careful adjustment of the quantity and quality of food to the capacity of the digestive organs for acting on it; the rapidly increasing condemnation of the indiscriminate use of alcoholic and other anæsthetic and narcotic agents; the occasional unsheathing of the long neglected lancet, with here and there a bold, outspoken advocacy of its judicious use; and above all, the better appreciation of the fact that a retardation of tissue, metamorphosis and elimination, is by no means equivalent to assimilation and nutrition, either in health or disease, are marks of a genuine progress, that can be easily recognised in the literature of practical medicine during the past year. And happy would it be, both for the profession and the public, if the return wave of thought, investigation and practice, now fairly begun, could be so guided by a higher mental discipline, the adoption of more patient and complete methods of observation, and the adherence to a more rational induction, as to turn it steadily upward at the true meridian line, instead of allowing it to roll steadily on until it again breaks upon the reefs and shoals of its own excesses. But we see no good reason for hoping for such a result. On the contrary, evidences of the same tendency to extremes and hasty generalisations are as visible in the field of practice to-day as at any former period. Very recently attention was directed anew to the importance of noting the variations of temperature in diseases, and straightway there appear diagrams marking the variation of temperature in the progress of diseases with as much apparent fixedness and certainty as the thermometric lines are drawn over the topographical map of a continent, and the practitioner looks upon his pocket thermometer as his chief instrument in diagnosis and prognosis. That temperature, if studied in close, careful connection with the co-existing indications of the state of nutrition, disintegration and elimination, is of great importance in a clinical aspect, is certainly true. It was the subject of my inaugural thesis in January, 1837. It was again the subject of a careful series of investigations by me, more especially in relation to certain kinds of food and drink, in 1850, the results of which were embodied in a paper read to this association in May, 1851, and published in the *North-Western Medical and Surgical Journal* for that year. Those investigations fully disclosed the important fact that the temperature of the body varied from  $1^{\circ}$  to  $2^{\circ}$  F. with each ordinary meal, invariably rising during the active period of digestion and then gradually declining until the next ingestion of food—thereby establishing precisely the same facts, that were again proved experimentally by Dr. E. C. Buckingham, of Boston, as published in the *Boston Medical and Surgical Journal* for January 1, 1874. It was in the same paper, read to this association in 1851, that the first direct experimental proof was given of the power of alcohol when in the human system to directly reduce its temperature. That the temperature of a body is altered by every change of its molecules, being increased as these become more compact or dense, is a well-known law of physics. As a rule those processes by which new materials are digested, assimilated and added to the tissues, evolve caloric or heat; while those by which the cells and atoms of the tissues re-dissolved, eliminated through the skin, lungs and kidneys, absorb or render the sensible heat latent, and therefore reduce the temperature.

When these adverse processes balance each other the ordinary standard of temperature is maintained, subject to such daily variations as accompany the active stages of digestion. Thence it is plain that a given degree of temperature in any stage of disease is a simple physical fact, the correct interpretation of which will depend entirely on the careful noting of the coincident state of the processes of ingestion and elimination. Just as the dullness perceptible on percussion denotes the simple physi-

cal fact of increased density, while the question whether such density depends upon tubercular deposits, hepatization, or pleuritic effusion, will depend altogether upon the history of the case and the coincident facts. If we use our clinical thermometer for the same purpose that we use the instrument for percussion and auscultation, that is, for the establishment of a physical fact to be interpreted by a careful appreciation of preceding and accompanying phenomena, it will be of great value. But if we endeavour to make its markings into arbitrary rules to guide our practice, as has already been too hastily attempted, it will lead us into mischievous errors at every step.

Another striking exemplification of the fact that our own day is as prolific of partial observations and hasty inferences as any that have gone by is found in the application of the microscope to the study of etiology and pathology.

Through its prolific revelations one army after another of poisonous germs are found preying upon the human race, until not only the air, earth, and water, but even the blood and the bowels literally swarm with them. From syphilis to cholera, and from them to cancer we have little else but microscopic germs enumerated as essential causes of disease. Dr. A., in some part of Europe, announces that he has discovered in the dejections of cholera patients certain germs, which by diligent cultivation multiply and develop rapidly, and a large part of the medical world at once leap to the conclusion that these are the veritable cause of that dire disease, and instead of patiently extending observations to ascertain whether the same germs are not to be found in the serous discharges from mucous surfaces, in any form of disease, after exposure to atmospheric air, they immediately give loose rein to imagination for the purpose of explaining how these extraordinary germs, hatched on the banks of the Ganges, could be propagated and distributed around the globe.

For this purpose they are made to travel with caravans, sail on ships, ride on railroads; and where there is neither caravan, ship, railroad, nor canal, they are made to percolate through the soil, receiving reinforcements now and then from some luckless wight perambulating the country with *cholérine*, and dropping his dejections just in the right place to supply the needed link in the chain of connection. But, just as we have our maps lithographed, our literature filled with satisfactory explanations, and our warehouses filled with materials for disinfecting the dreaded dejections, the tantalising word comes from a thousand sources that the supposed cholera germs are not by any means peculiar to the dejections from that disease, but may be readily cultivated as a *post partem* growth in any serous evacuation from the alimentary canal. From the tenor of these observations let no one infer that I undervalue the microscope as an aid in the study or investigation of medical topics. It has literally opened to us a wide and most important field of knowledge, and, when rightly used, is capable of adding much more. My object is simply to attract your attention to what has appeared to me the strongest barriers in the way of genuine progress, both in the science and art of medicine, namely: Incomplete observation of facts; deductions from inadequate premises, and the constant use of mere theoretical assumptions or suppositions as though they were demonstrated facts. It is the indulgence of these practices that actually keeps one-half of the professional observers busy in correcting the errors and disproving the assumptions of the other half, and fills our literature with endless contradictions. Almost every problem connected with medicine is complex, requiring for its proper solution a careful observation of many elements and their exact relations to each other.

#### THE BRITISH ASSOCIATION.

At the meeting held at Belfast, August 19th to the 26th, the Biological Section was divided into three departments—namely, Anatomy and Physiology, under Professor



Redfern; Zoology and Botany, under Dr. Hooker; and Anthropology, under Sir Wm. Wilde. Introductory addresses were delivered by each.

Dr. Pye Smith read a report of the committee appointed to investigate the nature of intestinal secretions. Experiments had been made to ascertain—1st. Whether other neutral salts had a similar effect to that of sulphate of magnesia on intestinal secretion; secondly, whether any other compound had the power of preventing such action; and thirdly, what nerves regulated those secretions during life. The results showed that several neutral salts possess a similar action to that of sulphate of magnesia. Sulphate of atropia, chloral hydrate, and other substances had no effect in diminishing the amount of secretion produced by sulphate of magnesia. With regard to the third point, it appeared that the splanchnic nerves are not the channel by which the currents from the cord pass to the secretory apparatus of the intestines. What the channel is the committee propose to ascertain by further investigation.

Mr. William Thompson, of Manchester, read a paper on "The Decomposition of Eggs."

Professor Cleland, of Galway College, brought forward a "Preliminary Notice of some Inquiries into the Morphology of the Brain and the Function of Hearing."

Professor M'Alister described "Some Anomalous Forms of the Human Periorbital Bones."

"Additions to the British Mollusca, and Notices of Rare Species from Deep Water off the Western Coast of Ireland" was a communication from Mr. Gwyn Jeffreys, in which he gave the result of his researches during a cruise in H.M.S. *Porcupine* in 1869.

In the Anthropological Department, Sir Duncan Gibb read a paper on "Longevity at Five Score Eleven Years," in which he mentioned the results of his examination of ten instances of persons who had overstepped the century. In the discussion which followed it appeared that there was a far larger number of genuine centenarians than was usually supposed.

Of other subjects worthy of mention were a "Report of Committee on the Chemical and Optical Properties of Essential Oils;" "Some Opium Derivatives," by Dr. C. R. Wright; "Cause of the Potato Disease, and the Means of its Prevention," by Mr. J. Torbitt; and "Report of the Committee on the Influence of Forests on Rainfall."

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THE

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## The Medical Press and Circular.

"SALUS POPULI SUPREMA LEX."

WEDNESDAY, SEPTEMBER 2, 1874.

### PROFESSOR TYNDALL'S ADDRESS.

WHAT can Professor Tyndall want? Standing in the post of honour, as the representative of Science, he is privileged to place before a select audience—and one that listens with profound attention—his views of nature, of man, of the origin of life—of whatever he pleases to dis-

cuss. These views are, to some extent, known, and are so completely in opposition to the opinions that prevail among men, that he evidently himself regards them as unpopular. Nevertheless, as we have said, he is listened to with profound attention. Fashionable society is as eager to honour him in Belfast as in Albemarle Street, and he is at liberty to preach materialism with all the power of his intellect and all the enthusiasm that the "dry light of science" can kindle within him. Surely here is liberty of which the age may be proud; and yet the learned professor adopts a querulous tone, and makes the aim of his address a vindication of the right of scientific men to investigate and to publish their conclusions on all subjects. Surely the day is past for disputation on such a theme. Professor Tyndall is in no danger of sharing the fate of Bruno, and the assumption that scientific men are likely to be burnt as heretics is, in the present day, simply ridiculous. But what else can we understand to be implied by the claim to discuss theories "whether right or wrong" because the "ground they cover is scientific ground." This may be so, but no one disputes the right which the speaker was at that moment exercising. Still, he considered it appropriate to say "the right claimed is one made good through tribulation and anguish, inflicted and endured in darker times than ours, but resulting in the immortal victories which science has won for the human race."

Here it is expressly admitted that the anguish has only been inflicted in "darker times than ours," and we take leave to state that, whatever discoveries may be made, science appears in no danger now, for though the people have no notion of deifying science, they have just as little wish to persecute her devotees; and the President of the British Association for the Advancement of Science chooses an odd moment to declare he must vindicate to the death the rights of thought when he occupies the post of honour, is the observed of all observers, when nobles and notabilities, wealth, fashion, and beauty listen, and his words are reported by telegraph to all the great daily papers, and thus sent wherever the English language is spoken. Strange perversity to expect persecution when columns of the *Times* are opened to special reports of his address.

But might not Professor Tyndall be conscious that he somewhat over-rated science and its claims when he asserted that "all religious theories, schemes, and systems which embrace notions of cosmogony, or which otherwise each into its domain, must, in so far as they do this, submit to the control of science and relinquish all thought of controlling it." This claim, though carefully worded, is large, and it might perhaps have sufficed to say they should relinquish the thought of controlling science without setting up the right of science to control them.

After all, it is not much that is offered in place of the religious theories thus ordered to stand aside; for Professor Tyndall admitted the insufficiency of science to satisfy man's need in this very address when he spoke of the religious sentiment as real; and said that "to yield it a reasonable satisfaction is the problem of the present hour." Whether we regard, with Professor Tyndall, matter as eternal, and the only indestructible part of the universe, looking on man as a

mere passing manifestation of a day—or whether we accept rather the more subtle notion of Berkely and others who set mind forth as the only essence—or whether we adopt a mixed view, such as millions entertain in spite of all metaphysical theories, and in opposition alike to all speculative systems, we cannot escape from ourselves, nor from our “environment,” and therefore the themes once more set in order before the Science Association command our lively interest. But even within the limits of the address we seem to feel that they are as unsettled as ever. “Can man by searching find out God?” Has science anything to offer us that may serve as more solid comfort than Job’s friends could offer him? This, we may be told, is not the end of science. If so, let science content itself within its own sphere, and not imitate those whom it so haughtily condemns for their attempts in time past to dictate to it.

If modern science is but a return to the philosophy of Lucretius and Epicurus, who formulated the “grand conception of atoms falling silently through immeasurable ranges of space into the arrangements out of which this visible system of things has been formed,” surely we are entitled to hesitate before we sacrifice everything at a shrine which is hallowed with none of that enthusiasm which is admitted to be a real part of our nature. Nay, if Empedocles saw the doctrine of the “survival of the fittest,” and evolution has been more or less a speculation present to individuals for ages, we should have reached a time when philosophers should not querulously demand the submission to authority they very properly refuse to practise themselves. Freedom of discussion by all means; but not for the materialists alone. They are more free than ever, and therefore Professor Tyndall’s complaint was quite uncalled for, and certainly his denunciations of the theories of others is curiously misplaced in an address full of speculation, and culminating in a confession of an attempt “to prolong the vision backward across the boundary of experimental evidence.” This, then, is the conclusion of those who set up experimental evidence as our only unerring guide. We are landed at the old boundary which man’s unaided intellect cannot pass. In spite of its interest, Professor Tyndall’s address is as inconclusive as others of its kind, and almost makes us wish for a return to the old practice of giving in the presidential address a summary of the progress of the year, eschewing those high themes on which men seem so unlikely to reach any satisfactory solution.

#### THE METRIC SYSTEM.

THE Metric System has such special interest to our readers that we may well quote in full the Report of the Committee to the Science Congress at Belfast. It was as follows:—

“The Committee appointed to report on the best means of providing for a uniformity of weights and measures with reference to the institute of science have already in their several reports indicated their opinion that such uniformity can best be promoted by the diffusion of the metric system in all civilised countries, and by the adoption of a system of coinage founded on gold, as a single standard with a uniform proportion of allowing of one in ten, and with a decimal division, and their opinion has been corroborated by the gradual extension

of the metric system notably in the whole German Empire, and by the concurrence of all nations in the same principle of coinage, though not in the identity of the unit. It is in the United Kingdom that the greatest difficulty is experienced in introducing the reform, and the Committee regretted that the Government had as yet taken no practical step in advance of the same. Meanwhile, however, the International Metric Conference had proceeded in their deliberations and in the manufacture of perfect metric standards, and the Committee hoped that as soon as a copy of the same should have been deposited in England, the Warden of the Standards will be authorised to verify by them the metric weights and measures in use in the United Kingdom, and that by this and other means the difficulties still in the way of the voluntary use of the same might be removed. The Committee having already done their best to diffuse information on the subject remitted to them did not think it necessary to recommend their re-appointment, and, in leaving the subject to be further matured by experience and time, reiterated their firm conviction that the uniformity of the weights and measures and coins would tend to the economy of time in the ordinary transactions of length, the extension of education and science, and the general advance of commerce and international intercourse.”

Notwithstanding the recommendation of the Committee, it was, after some discussion, again re-appointed, and certainly there are some reasons for satisfaction at this course. We have always sympathised with the desire to obtain an easy system of calculation that might bring us into closer relations with foreign countries, and always felt a regret that our differences should practically cut off so many from useful intercommunication. The statisticians are all in favour of a decimal system, and so many nations have now adopted it that it looks as if ultimately we should have to follow suit. The new German coinage is very nearly like our own, and its introduction is a sign of the times.

There is one point, however, in which medical men are perhaps behindhand; while always supporting the decimal system theoretically, they have practically deserted their principles. The clinical thermometer in this country is now widely in use, and we have by a sort of fatality for the most part stuck to the Fahrenheit scale. We submit that it is as important to science to have uniform thermometers as weights or measures. In this particular instance a little resolution at the commencement would have placed the records of clinical thermometers in all countries on a uniform scale. No greater oversight could have been committed by those who are anxious on the subject than to fail to enforce attention to the advantages of a single scale. Should not medical men now take up this question in earnest? It would be a fair subject for discussion at the International Medical Congress next year at Brussels. Meantime, let us take to heart the lessons of our own Science Congress.

An able speaker (Mr. Heywood) pointed out that the chymists, as a body, had taken up this subject most zealously, the Pharmaceutical Society having lately taken a division on the question whether they should adopt the system, when a most favourable opinion was found to prevail. It was suggested that influence should be applied in a quiet way to the proprietors of Cullen’s Arithmetic, the Messrs. Longman, in order to have the system introduced into that work, which was in such

general use in our schools. When the late Sir William Brown brought forward the subject in the House of Commons there was a large majority in favour of the proposal, and the Government of that day had gone so far as to coin a florin as part of the decimal system, but the present Government has gone back to the coinage of half-crowns, so we need not pretend to wait for the coinage. The metric system is now legal, though only permissive, though metric standards have not yet been verified in the same way as imperial measures. The system is already being taught in the higher class of schools, and the new Pharmacopœia is based on the metric system. The subject is therefore making progress. It is well known that the Associated Chambers of Commerce, ten or twelve years ago, unanimously resolved in favour of the system, and it was again this year stated by Dr. Farr that the Statistical Congress, held at the Hague, had passed resolutions to the effect that all statistical returns should be expressed in the form of the metric system, or, if according to our present weights and measures, a column should be provided for the same facts expressed in the metric system. The metric system is now almost universally used in France; Germany has recently adopted it; in Austria, Belgium, Italy, Spain, Greece, Switzerland, and the Southern States of America it has triumphed, and we must repeat that optionally the decimal system is already adopted in this country. From the tone of the discussion it was clear that the metric system had no opponent in the British Association. No one denied or disputed its utility. Is it not therefore strange that a system which has been of the greatest value to scientific men, and which has been so widely adopted, should not be adopted generally by the people of this country? Strange, however, as it may be, there are many excuses for the people who do not desire to change their modes of dealing and calculating. To the masses international communication does not seem important, and governments must consider the masses. To scientific men, however, it is easy to use the decimal system, and medical men have lost much by adhering to the Fahrenheit thermometer.

## Notes on Current Topics.

### Hospital Saturday Fund.

AN open-air meeting for promoting this fund was held on the 22nd ult. at Blackheath, under the presidency of Captain Mercier. A local committee for Greenwich and Deptford was appointed. It was announced that a grand *fête* in aid of the funds will be held at the Crystal Palace early in October.

### Action against an Insurance Company.

THE case of Dr. Jay *versus* the Gresham Life Assurance resulted in a verdict for the plaintiff on the 24th ult. The action was brought by Dr. Jay to recover £3,000, the amount of a policy effected on the life of his late wife; and payment was disputed by the company on the ground that material facts had been suppressed when the policy was effected. It was alleged by the defendants that

deceased was of intemperate habits, and a vast amount of contradictory medical evidence was produced. Dr. Jay denied that Mr. Dale, a surgeon at Scarborough, had spoken to him before the marriage, and had warned him that the lady was addicted to drinking and suffered from enlargement of the liver. Mr. Baron Amphlett, in summing up, alluded to the way in which the case had been got up, saying that Dr. Steele's letter was no doubt an attempt to get evidence for the office. His lordship condemned the practice of a great insurance company getting evidence in that way. As to the words in a letter from Dr. Jay to Dr. Steele, "I never knew until I was married and the life insured that Mrs. Jay's failing was of long standing," the jury would have to consider whether there was a reasonable construction to be put upon them. The jury, after five hours' consideration, gave a verdict in favour of Dr. Jay.

### Pure Water on board Ships.

SIR A. ARMSTRONG having urged upon the authorities the urgency of supplying pure water to Her Majesty's ships, a number of charcoal filters have been purchased. The filters are constructed on the charcoal block system.

### New Infirmary for Warrington.

It has been decided to erect the new Infirmary and Hospital for Warrington on the site originally fixed upon for it at Bank Park Gardens, Warrington, notwithstanding that considerable opposition had been made to that particular site by the Medical Committee.

### Doctors of the Olden Times.

SOME highly interesting and amusing anecdotes of the old physicians who have paced up and down Warwick Lane seem almost indispensable to a sketch, however brief, of the old College of Physicians, and of these Mr. Walter Thornbury, in Cassell's "Old and New London," gives some in his most chatty style. He begins with the famous Dr. Radcliffe, the first pre-eminent physician that arose after the removal of the college to the building erected by Wren in Warwick Lane. Radcliffe, a man eager for money, and of rough Abernethy manners, had the cream of all the London practice, when he lived in Bow Street, next door to Sir Godfrey Kneller, the great painter. He was brusque even with kings. When called in to see King William, at Kensington, finding his legs dropsically swollen, he frankly said, "I would not have your two legs, your Majesty, not for your three kingdoms;" and on another visit the Jacobite doctor boldly told the little Dutch hero—"Your juices are all vitiated, your whole mass of blood corrupted, and the nutriment for the most part turned to water; but," added the doctor, "if your Majesty will forbear making long visits to the Earl of Bradford" (where, to tell the truth, the king was wont to drink very hard), "I'll engage to make you live three or four years longer; but beyond that time no physic can protract your Majesty's existence."

Another sketch is of Dr. Wormald, or "Old Tommy," as the students called him. He was Abernethy over again in voice, style, appearance, humour. "Done for," was one of his pithy written reports on a "bad life" to an insurance

company, whose directors insisted that he should write his reports instead of giving them verbally. He once astounded an apothecary, who was about to put him and certain physicians off with a single guinea fee, at a consultation on a rich man's case, by saying, "A guinea is a lean fee, and the patient is a fat patient. I always have fat foes from fat patients. Pay me two guineas, sir, instantly. Pay Dr. Jeaffreson two guineas, instantly, sir. Sir, pay both the physicians and me two guineas each, instantly. Our patient is a fat patient." Some years since, rich people of a mean sort would drive down to St. Bartholomew's, and get gratuitous advice, as out-patients. Tommy was determined to stop this abuse, and he did it by a series of outrageous assaults on the self-love of the offenders. Noticing a lady, dressed in silk, who had driven up to the hospital in a brougham, Tommy raised his rich, thunderous, sarcastic voice, and, to the inexpressible glee of a roomful of young students, addressed the lady thus:—"Madam, this charity is for the poor, destitute, miserable invalids of London. So you are a miserable invalid in a silk dress—a destitute invalid, in a rich silk dress—a poor invalid, in a dress that a duchess might wear. Madam, I refuse to pay attention to miserable, destitute invalids who wear rich silk dresses. You had better order your carriage, madam." The lady did not come again.

#### Petrifaction versus Cremation.

DR. STEINBRIS, of Würtemberg, proposes to dispose of the dead by placing the body in a trough of cement, and then filling the space with liquid cement, which will harden and convert the whole into a solid mass of stone. The blocks thus obtained may be piled up, buried, or inscribed and set up to do duty as both tombs and tombstones. This method, if generally adopted, possesses some advantages for posterity, as future generations would probably use the obsolete blocks for building material.

#### Contamination of Aerated Waters.

WE have ourselves lately had an opportunity of verifying the remarks which have lately gone the round of the daily and weekly papers as to the foulness and unfitness of some aerated waters for drinking purposes. On having a bottle of aerated water opened on board one of our first-class steamers, the material was absolutely putrid, and smelt abominably. A comparative analysis of these waters from the various manufactories would be highly useful at a time when such unpleasant records are made public.

#### The Distribution of the Hospital Sunday Fund.

THE Committee of Distribution of the Metropolitan Hospital Sunday Fund have completed their task and published their awards of the amount realised, which amounted to above £29,500. Of this sum, £27,440 Gs. 1d. have been awarded to hospitals, dispensaries, and kindred institutions. The *Students' Journal* of Saturday last analyses the results thus:—

The following are the hospitals that have not been awarded grants, viz.: The British Skin Hospital, Great Marlborough Street (patronised by the Shah!); St. Peter's Hospital for Stone; the Throat Hospital,

Golden Square; the Hospital for Diseases of the Heart, Soho Square; Central London Ophthalmic, National Dental, and the Western Ophthalmic Hospital. St. John's Hospital for Diseases of the Skin made no application to participate. It will be observed that the list contains the names of some "specials" that we have always condemned as unnecessary, if not actually mischievous in their effects, and therefore undeserving of public support.

Last year the British Skin Hospital received from the Fund the sum of £47 18s. 4d.; St. Peter's Hospital, £38 6s. 8d.; the Throat Hospital, £191 13s. 4d.; and the Western Ophthalmic, £57 10s.; St. Mark's (for fistula) receives only £76 5s., as against £287 10s. last year; Royal Orthopædic, £76 5s., against £191 13s. 4d. last year; and the Cancer Hospital only £76 5s., against £239 11s. 8d. last year. We are pleased to see that the dispensaries have been more liberally dealt with than they were last year; also that the lion's share has been awarded where most wanted—viz., to the large unendowed general hospitals. Of these the London Hospital receives £3,821 10s.; St. George's £3,050; Middlesex, £2,287 10s.; University College, £1,220; St. Mary's, King's College, and Westminster, each £1,143 15s.; Charing Cross, £991 5s.; Royal Free and Seaman's, each £610; Poplar, £419 7s. 6d.; and the West London, £381 5s.

One point for which the Committee deserve great credit is the decisive blow they have inflicted on those clergymen who, instead of forwarding their collections to the Mansion House, distributed the sums to local charities, by deducting these sums from the amounts awarded to the several institutions. Had the Committee taken no notice of the sums transmitted direct to local charities, great injustice would have been done to other charities; moreover, this irregular distribution would have increased annually, and thus ensured the ultimate failure of this great and eminently worthy movement.

#### The Charge against a Parish Surgeon.

OUR readers will doubtless have observed in the daily papers a case of alleged assault brought by a patient, a young woman named Field, against Mr. Pope, of Brixton. The case has been before the court on three occasions, and was finally dismissed on Thursday last, the magistrate remarking that as the complainant's statements had been proved in several particulars by independent witnesses to be false, he was bound to give the defendant the benefit of the doubt, and dismiss the case. To us this is a very unsatisfactory ending. This woman charged Mr. Pope with a very serious offence, committed or attempted while in the discharge of his duties as a district surgeon. Either it is true or it is false; there cannot be any third issue. If true the defendant has been let off too easily; if false, his name has been added to the long list of victims of that unscrupulous class of women whose only object appears to be to extort money from innocent persons under threat of exposure, and whose position morally impels them to pay anything sooner than have their names dragged into print. This woman's evidence was contradicted over and over again, and the perjurer was allowed to go off scot free, side by side with the gentleman whose name, position, and future prospects she had done all that lay in her base power to ruin. We hope the case will not end here, but that we shall see the position of the two parties in the dock changed before many days are over.

#### The Propagation of Scarlatina.

THE following report will interest those concerned in the repression of such a dreaded scourge as scarlatina. We all hear of schools being broken up and families dis-

persed in an endeavour to force the lines of an outbreak of this disease, but the source hinted at is rather an unexpected one, and a very likely means indeed of propagating infections. At the last meeting of the Lincoln Board of Guardians a report was presented by Dr. Harrison, of the districts of Eagle Moor, Waddington, Potterhanworth, &c., who, in the course of his remarks, said that he looked upon village schools as the centres of contagion of scarlet fever in the rural districts, numbers of cases he had enquired into having been sent home ill from school. He thought those who had the authority to close school during the harvest time should certainly exercise their power, and close them during the prevalence of contagious fevers. People from infected houses, as they carry the disease of scarlet fever about in their clothes, should be prevented as much as possible from associating with others. He had lately heard of people going from houses in those districts infected with scarlet fever to church to attend a funeral; the service was read in church at two on the Sunday afternoon, and the ordinary service was at three o'clock.

### The Chorley Case of Malapraxia.

ANOTHER of those remarkable exhibitions of ignorance on the part of a country jury as to the responsibilities and duties of our profession towards the public has just been concluded at Liverpool. The facts of the case are, shortly, that the child of a labouring man met with a severe accident while at play, a compound fracture of both bones of the forearm, which subsequently ended in gangrene and amputation. All that followed was at the instigation of an illiterate "bone-setter" of Bolton, for the parents, when they called in Dr. James Rigby to see their child, made no complaint whatever, and therefore, as the learned counsel for the defendant justly observed, "but for the misfortune of their having fallen into the hands of a man so grossly ignorant as this Bolton bone-setter, who did not even know what was the envelope of the human body—whose knowledge was not even skin-deep," nothing would ever have been heard of this action for malapraxia. If there was any error in the treatment of the case, it resolved itself into a simple question as to whether the application of a few strips of plaister, which Mr. Rigby placed round the arm, had either directly or indirectly been the cause of gangrene. Admitting that it had any share in the subsequent unfortunate termination of the case, this amounted, at most, to a mere error of judgment, which the judge told the jury the defendant must not be held responsible for, but which, nevertheless, must have induced them to give a verdict for the plaintiff. What proved far worse than the application of the plaister was that of dragging the child from Chorley to Bolton to see Douglas, the bone-setter. This person, it appears, culpably removed the bandage and splint, and allowed the arm to hang down during a fatiguing double journey to and fro, while it was clearly shown by several eminent surgeons that Mr. Rigby pursued a course of treatment which they fully approved and sanctioned. We deeply sympathise with the victim of this malicious prosecution, and are therefore glad to see that an application has been made for a new trial, which we hope will take place in London.

### The Depths of the Ocean.

ONE of the most interesting fields of modern scientific research is that into the physical condition of the deep sea. As our readers are aware, a distinguished member of our own profession has taken the most prominent part in these important researches, and we looked with interest to the statements that were to be made by Dr. Carpenter at Belfast. He gave a most interesting account of the results of the cruises of the Challenger, and we doubt not that the near future has much to reveal to us in this direction. When we consider how small a portion of this field has been at present explored, and yet how rich has been the reward, we may well look forward with expectation.

Dr. Carpenter, in speaking of what has been already accomplished, estimated that over an area of 15,000,000 square miles the thermal stratification of the Atlantic had now been determined—that is to say, the distribution of temperature from above downwards in layers and strata comparable to those recognised by the geologist in the earth's crust. The Challenger Expedition, curiously enough, arose from the Fenian movement in Ireland. In 1868 Dr. Carpenter was on a visit to Professor Wyville Thomson. The attack upon Clerkenwell Prison had been made; a feeling of considerable alarm existed in the public mind, and numerous cruisers lay along our coasts. In these circumstances Professor Thomson suggested that they might get the use of one of these boats in order to make some deep-sea dredgings. On his return to London Dr. Carpenter made such representations as secured for them the use of the Lightning as a surveying vessel. Their first inquiries were carried on between the Faroe Islands and the North of Scotland. In that region of the sea, at between 500 and 600 fathoms, they found a temperature below freezing point, while at another part of the sea, and at the same depth, the temperature was 45°. Accompanying this there was a difference in the bottom and in animal life so complete, that at a distance of only a few miles they might bring up a mass of material similar to chalk, and which they now regarded as chalk in process of formation, and also animals resembling those of the old chalk type. On the other hand, a few miles off, the bottom being of barren sand, animals resembling sand animals were found, only known before as belonging to Iceland and Spitzbergen. These were found within 100 miles of the north coast of Scotland. In afterwards describing soundings which were made at one point in the Atlantic, Dr. Carpenter stated that two strata were found to exist, a deep glacial stratum coming down from the Polar area overlying the bottom, and over this another stream coming up and carrying a warm temperature with it. This he found subsequently was a general phenomenon in the Atlantic. In the Mediterranean, again, he found that the surface water in the heat of summer was heated up to from 75° to 80°; but this superheating ceased to manifest itself almost entirely at fifty fathoms. At 100 fathoms it disappeared altogether, and a uniform temperature was reached which extended to the bottom of the sea. In winter the temperature of the Mediterranean was from 50° to 54° over its whole surface from the top to the bottom. In summer the surface layer became heated to a certain extent by the rays of the sun, not so much by the direct

penetration of the sun's rays as by the concentration of the surface films by evaporation, and their sinking and carrying down their high temperature. In this way Dr. Carpenter formed the general idea of a great ocean circulation altogether independent of winds, altogether independent of the great horizontal movement of water of which the Gulf Stream was the most conspicuous example, and producing a most important effect in equalising the temperature of different parts of the ocean. He found that there was a continual flow from the bottom towards the equator along the deeper stratum; when the two polar flows met under the equator there was an upward movement, bringing polar water gradually under the influence of the equatorial sun; and then, as the convex of that, a movement of equatorial water, carrying the warmer equatorial water towards the pole, where in its turn it becomes cooled down by the polar atmosphere, and sinking, by its greater specific gravity, flowed back towards the equator as an under-stratum.

MR. E. BELLAMY, of Charing Cross Hospital, has been appointed to deliver the course of lectures on anatomy in the Government Art and Science Schools at South Kensington.

MR. CÆSAR HENRY HAWKINS, F.R.C.S., F.R.S., has been appointed President, and Mr. Jonathan Hutchinson, F.R.C.S., Hon. Secretary to the New Sydenham Society for the ensuing year.

At a special entertainment given in the Royal Foresters' Hall, Mile End, a few days since, the handsome sum of £94 10s. was cleared and handed over to the Treasurer of the London Hospital.

A MONTHLY NURSE was last week fined 40s. and costs, at the Clerkenwell Police Court, for having conveyed a servant suffering from scarlet fever to the Fever Hospital in two tramway cars successively.

We have much pleasure in learning that a Rowing Club has lately been formed at the London Hospital, which has received the most active support of both staff and students, Dr. Andrew Clark being President.

ONE of the few survivors of the Battle of Waterloo has just passed away in the person of Mr. Hawkins, M.R.C.S., who was assistant-surgeon on the cavalry staff at that memorable battle. Mr. Hawkins had passed four score years.

THE inhabitants of Maryport and vicinity have presented a handsome testimonial to Dr. John Nicholson Fleming, who had for many years been in practice amongst them, "in recognition of his private and public worth, on the occasion of his leaving Maryport to commence practice in Newcastle-on-Tyne."

At Wrington, North Gloucestershire, the inhabitants have been celebrating the marriage of the granddaughter of Dr. Young, formerly Surgeon to the 28th Regiment. Dr. Young served in the Peninsula from March, 1811, to

February, 1813, including the last siege of Badajoz and battle of Salamanca. He served also in the campaigns of 1813-14-15 in Germany, Holland, and the Netherlands, including the attack on Bergen-op-Zoom and battle of Waterloo. He has received the war medal with two clasps for Badajoz and Salamanca.

PROFESSOR GRANT, F.R.S., the distinguished zoologist, died on Friday, the 21st ult., in London. He was born in Edinburgh, in 1793, and received his early education at the High School. In 1808 he commenced his medical studies at the University, and finally became a Member of the College of Surgeons and M.D. of the University in 1814. After being in practice and delivering lectures on comparative anatomy for some years, Dr. Grant accepted the Chair of Comparative Anatomy and Zoology at University College, London. In 1837 he was appointed Fullerian Professor of Anatomy and Physiology at the Royal Institution of Great Britain.

## Association Intelligence.

### SHROPSHIRE SCIENTIFIC BRANCH.

THE annual meeting of the above branch will be held in the Natural History and Antiquarian Museum, at Shrewsbury, on Wednesday, September 9th, at 1.30 p.m., Wm. Eddowes, Esq., jun., President.

Papers on Hydrophobia and Chorea will be read, and others are promised.

The dinner will take place at the George Hotel at 4.30 p.m. SAMUEL WOOD, Honorary Secretary.

Shrewsbury, August 14th, 1874.

### MIDLAND BRANCH.

THE President of the above branch, T. Sympson, F.R.C.S., intends to hold a quarterly meeting at Boston during the month of September.

Members desirous of reading papers are requested to communicate at once with

C. HARRISON, Honorary Secretary.

Lincoln, August, 1874.

### NORTHERN COUNTIES (SCOTLAND) BRANCH.

THE annual meeting of this branch will be held in the Royal Hotel, Inverness, on Saturday, September 12th, at 11 a.m., J. J. Ross, Esq., M.D., of Inverness, President.

Particulars by circular.

The Council will meet in the same place at 10 a.m.

J. W. NORRIS MACKAY, Honorary Secretary.

Elgin, August 25th, 1874.

### NORTH OF ENGLAND BRANCH.

THE autumnal meeting of this branch will be held at Saltburn-by-the-Sea, on Thursday, September 17th, at 1.30 p.m., Andrew Legat, M.D., President.

The following papers have been promised.

1. Dr. H. J. Yeld: The Health and Mortality of Towns and Villages, as affected by Sanitary Legislation.

2. Dr. J. W. Macdonald: Catarrhal Pneumonia.

3. Dr. J. W. Eastwood: Case of Insanity, complicated with Partial Paralysis.

4. Mr. J. T. Parkinson: Case of Chronic Bright's Disease of the Kidneys (small contracted variety).

5. Mr. J. T. Parkinson: Case of Paracentesis Thoracis.

6. Dr. G. H. Philipson: Case of Hydatid Disease of the Liver, treated by puncture.

Gentlemen who desire to make communications at the meeting are requested kindly to communicate with the Secretary without delay.

Dinner at the Alexandra Hotel, Saltburn, at 4 p.m. Tickets, exclusive of wine, six shillings.

G. H. PHILIPSON, M.D., Honorary Secretary.

Newcastle-upon-Tyne, August 26th, 1874.



## Correspondence.

### ON THE THEORY OF COUNTER-IRRITATION.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—Although I am somewhat surprised to learn that Dr. James Ross was not unaware of Fletcher's priority in the stimulant theory of counter-irritation, yet I am quite convinced, from his candid explanation, that he makes no claim of priority for himself, since finding that he was preceded by others, though he has the merit of having thought out the theory for himself. Fletcher appeals to the views of Lubbock, Allen, W. Philip, Black, Hastings, Gendrin and others in favour of the then new doctrine, that inflammation consisted essentially in a weakened action of the capillary tissue, and the theory in question is put forward as a natural corollary of that doctrine. He quotes any opinions of previous writers who have theoretically favoured the idea, and in particular, while explaining that with respect to epispastics, the benefit is, *ceteris paribus*, in proportion to the irritation and consequent stimulus, and not to the amount of discharge, he cites the saying of Stoll, "non suppuratio sed stimulus prodest." Nevertheless, he was the first, I believe, who expounded the doctrine in a complete and systematic form, and as harmonising with this whole system of pathology. It was taught publicly by him for ten years preceding 1836, and published in that year in his "Physiology", and more completely in his "Pathology" in 1842, and it has been believed in and acted on by his numerous pupils since that time. Dr. Ross claims originality in a small part of the application of the theory in that he says: "I have supplied a new machinery by which the stimulant action may be supposed to travel from the source of irritation to the diseased part. Fletcher believes that it is mainly owing to an action of the vessels, while I believe, on the contrary, that it is chiefly due to the proper parenchyma of the part." I think an attentive study of Fletcher's own works will show Dr. Ross that this is hardly correct. Fletcher held that inflammation and all nutrition and secretion were seated in the "capillary or parenchymatous tissue," which was the last word of anatomy then; and that the new irritation if near was propagated by contiguity, but if distant, by the reflex action of the nerves of organic sympathy, which corresponds pretty nearly to the central vaso-motor system of our day, and which harmonises also with the view of local ganglionic nerve-centres of Beale and Remak. In other respects, his theory was far more complete than that of Dr. Ross, for he held that vitality did not reside indiscriminately in the capillary or parenchymatous tissue, but solely in "diffused ganglionic nervous matter," which was hypothetically supposed to be spread through and interwoven with all living parts, and to the presence of which the vitality of any part was due. Upon this alone not only the stimuli which cured inflammation, but all other stimuli ultimately acted. This remarkable anticipation of the modern protoplasm theory will be brought before the public shortly in a small work which I have in the press.

Those who hold the stimulant theory of counter-irritants and revulsives, even when the disciples of Fletcher are reinforced, Ross and others who are reviving it form a small minority, and the recent discussions of the subject do not show any decided advance on the times of 1836, when Fletcher wrote (in his "Physiology," p. 135) that "medical men [were] destitute of the faintest outline of the shadow of an intelligible idea . . . of the operation of a so-called revulsive remedy." For instance, Mr. Jordan, in his attempt to revive the fashion of blistering, &c., as the universal remedy for inflammations, says (*Practitioner*, I., p. 79), "they probably remove a sum total of textural force (as Mr. Simon suggests) from the inflamed to another locality." This is not only simply unintelligible to other people, but it shows that the authors cannot have formed in their own minds any intelligible conception of the nature of life or force. And that this can be said of a hypothesis suggested by Mr. Simon goes far to justify the application of Fletcher's remark to the present generation.

Dr. Ross would do well to study Fletcher for other reasons also, for in his theoretical papers he is treading, for his own fame, perilously too nearly upon the path opened up by Fletcher; and he had much better frankly acknowledge and afterwards build upon what foundations he may have found correctly laid down by him. It is a

thankless task to re-discover what is already known and other eyes than mine are upon Dr. Ross, who perhaps may not judge him so leniently. Since my letter of the 5th August, I have heard from an old pupil and disciple of Fletcher, with whom I am personally unacquainted, who says that "Dr. James Ross continues to give Fletcher-and-water in the *Practitioner*" without acknowledgment of the source; and that the medical journals will not insert his reclamation of Fletcher's rights. This I have also found in respect to the *Lancet* and the *Medical Times* as well as the *Practitioner*, and it is a matter that those of our profession who are men of science and gentlemen, ought to look into. And this brings me to the most painful part of this subject, viz., the conduct of Dr. Anstie, who has as yet given no explanation. I have again read his statement in Vol. I p. 361, and I take it to mean a direct claim of having been the first to put forward the stimulant theory in 1861. That an editor should take advantage of his position to suppress evidence of priority in respect to a discovery claimed by him is surely not to be tolerated.

JOHN DRYSDALE, M.D.

Liverpool, 28th August, 1874.

## Medical News.

University of London.—The following are lists of the candidates who have passed the recent Honours Examinations:—

(FIRST B.SC. AND PRELIMINARY M.B. CONJOINTLY.)

### CHEMISTRY.

#### First Class.

Munro, J. May Herbt., First B.Sc. and Prel. Sci. (Exhibition, Coll. of Science, Dublin.

#### Second Class.

Uthoff, John Caldwell, Prel. Sci., Guy's Hospital.  
Wilkinson, Arthur, Prel. Sci. Owen's College Medical School.  
Smith, Alfred John, First B.Sc., Owen's College.

#### Third Class.

Capper, Thomas, First B.Sc., private study.  
Tilly, Alfred, Prel. Sci., St. Mary's Hospital.  
Smith, George, First B.Sc. and Prel. Sci. Royal School Mines.  
Crow, John Kent, First B.Sc. and Prel. Sci., Owen's College.  
Gill, First B.Sc. and Prel. Sci., Roy. Institution, Liverpool.  
Berry, Frederic Haycraft, Prel. Sci., Guy's Hospital.  
Wiglesworth, Joseph, Prel. Sci., Liverpool School of Medicine.  
Maylard, Alfred Ernest, Prel. Sci., Guy's Hospital.  
Sedgefield, Arthr. Robt. Wyatt, Prel. Sci. King's College.  
Wainwright, Robt. Spencer, Prel. Sci., Guy's Hospital.

### ZOOLOGY.

#### Second Class.

Hill, Alexander, Prel. Sci., University College.

#### Third Class.

Castle, Hutton, Prel. Sci., St. Thomas's Hospital.  
Gill, First B.Sc. and Prel. Sci., Roy. Institution, Liverpool.  
Wilkinson, Arthur, Prel. Sci., Owen's College Medical School.  
Williams, Dawson, Prel. Sci., University College.  
Smith, First B.Sc. and Prel. Sci., Royal School of Mines.  
Wiglesworth, Prel. Sci., Liverpool School of Medicine.  
Boulting, William, Prel. Sci., University College.  
Saiss, Walter, First B.Sc., Royal School of Mines.  
Shaw, John, Prel. Sci., St. Thomas's Hospital.  
Davies, William Edward, Prel. Sci., University College.  
White, A. H. S., First B.Sc. and Prel. Sci., University College.

### EXPERIMENTAL PHYSICS.

#### Second Class.

Tilly Alfred, Prel. Sci., St. Mary's Hospital.

#### Third Class.

Gill, R., First B.Sc. and Prel. Sci., Roy. Institution, Liverpool.

## BOTANY.

## Third Class.

Munro, J. May Herbt., First B.Sc. and Prel. Sci., College of Science Dublin.  
 Whitney, Neville Scott, Prel. Sci., University College.  
 Castle, Hutton, Prel. Sci., St. Thomas's Hospital.  
 Robertson, David, Prel. Sci., private study.  
 Wilkinson, A. T. Prel. Sci., Owen's College Medical School.  
 Wigglesworth, J., Prel. Sci., Liverpool School of Medicine.  
 Davies, William Edward, Prel. Sci., University College.  
 Williams, David James, Prel. Sci., University College.

## NOTICES TO CORRESPONDENTS.

**✉** CORRESPONDENTS requiring a reply in this column are particularly requested to make use of a *distinctive signature or initials*, and avoid the practice of signing themselves "Reader," "Subscriber," "Old Subscriber," &c. Much confusion will be spared by attention to this rule.

G. F.—Communication received.

G. Fox.—The matter shall receive our early attention.

E. T.—Communication received, and will appear in our next impression.

Dr. BALLARD has given the wrong title to a lecture which he says recently appeared in this journal. If he will forward more correct data the number will be sent him if in print.

Dr. H. M. J.—The information was too brief to be intelligible; sorry we could not use it.

Mr. HAYWARD, London Hospital.—We have received a copy of the rules, which is highly creditable. We heartily wish your enterprise success.

Dr. HARVEY.—In an early number.

A DISPENSARY MEDICAL OFFICER.—We refrain from publishing your letter, because we are unwilling to stimulate a feeling of jealousy between workhouse and dispensary medical officers, and as the question is settled, we see no advantage in debating the merits of candidates which—however great they may be—have not been recognised by Parliament.

Dr. DUDGON's letter was received too late for the present number; it shall appear in our next.

HAMPDEN.—We can express no personal opinion upon the capacity of any one to set bones unless we have had personal knowledge of his competency. Our mind is, however, made up on three points:—

1. That, inasmuch as the reduction of difficult dislocations is one of the most adroit proceedings in surgery, it is supremely impossible that it can effectually be done by any one who has not acquired a close practical acquaintance with both the anatomy of the parts and the necessary surgical manipulations.

2. That it is excessively improbable that any one can possess this knowledge unless he has received a careful surgical and anatomical education.

3. That most bone-setters achieve a reputation by the reducing dislocations which never existed, and curing sprains which they have themselves made.

4. That when a quack of any sort achieves a certain notoriety experience tells us that there will always be herds of fools (and not the less fools in this matter because they wear lawn sleeves or have a handle to their names) to believe in him and testify to assumed facts of which they have no personal knowledge whatever.

For these reasons we hold the opinion that no unqualified bone-setter is to be trusted.—Ed. M. P. & C.

OUR INDIAN CORRESPONDENT.—The pamphlet is in the hands of a writer who understands the subject, for an early notice.

MEDICAL JOURNALISM.—*Medical Notes and Queries*, which has carried on a lingering existence for two or three years, during which time its title was changed to the *Night Bell*, has at last ceased publication; the *Medical Record*, published in Paris in the English language, after two or three months of life, has also been suspended; and the *Echo de la Presse Médicale*, which started about the same time, will in future be published once a month only.

## DR. WEST AND "THE BRITISH MEDICAL JOURNAL."

The following resolution, passed by the Committee of Council of the British Medical Association at a recent meeting, has been forwarded to us by the solicitors to the Association, with a request for its publication in our columns:—

"Resolved.—That the Committee of Council regret that Dr. West does not consider the explanation of the Editor in the *British Medical Journal* of July 11th as satisfactory. They believe that the Editor has

acted with great courtesy in the matter and with perfect good faith. The Committee consider that the language in which Dr. West's letter is couched is uncalled for."

FALLEN LEAVES.—The fall of the leaf is invariably associated with a lowering of the tone of public health, and an increase of mortality. Has the fall of the leaf anything to do with it? There can be no doubt that it has. When the leaves fall we usually have warm wet weather, and the ground that is strewn with leaves becomes a nursery of morbid influences. In places where the fallen leaves are much crushed and stirred by feet and wheels the evil is aggravated, and of course on heavy lands the evil is of a more decisive nature than on absorbing sand, or chalk, or limestone. Where deciduous trees abound on clay lands, all the much-frequented roadways should be kept as clean as possible during the time of the fall of the leaf. The delightful odour that the fallen leaves diffuse in woods suggests their harmlessness, but on the roads and walks, where the leaves are hourly crushed and the dropping rain helps to make a paste of them, they are, without doubt, pe stiferous nuisances, and parochial authorities and private proprietors should cheerfully combine to mitigate the severity of the mischief they are capable of effecting.—*The Gardener's Magazine*.

To the Editor of the MEDICAL PRESS AND CIRCULAR.

DEAR SIR,—Will you kindly say in your next issue if the coroner has the power of certifying for 15s. fee to a medical witness at an inquest; I have always got a guinea. I attended an inquest the other day, and received an order for 15s. I was always under the impression that the coroner should certify for the usual fee of one guinea. Does the law compel payment of so much?

Yours faithfully,

J. H.

[It is entirely at the discretion of the coroner—unless he acts at the special wish of the jury—whether he shall call in a medical witness at all; but if he does so he certainly must pay the proper fee of £1 1s. and has, we believe, no power to offer less. Possibly the summons has not been formal; if so, the coroner might pay anything, or nothing.—Ed. M. P. & C.]

COMMUNICATIONS, Enclosures, &c., have been received from Dr. Quain, London. Dr. Falconer, Bath. Dr. Balthazar Foster, Birmingham. Dr. Waters, Liverpool. Mr. Pearce, Plymouth. Mr. Dean, Salthwaite. Mr. Hinde, London. Dr. Morgan, Dublin. Dr. Moore, St. Bartholomew's Hospital. Dr. Maunsell, Dublin. Dr. James, Aix-la-Chapelle. Surgeon-General Gordon, London. Dr. Campbell Black, Edinburgh. Dr. Drysdale, Liverpool. Dr. Duncan, Edinburgh. Dr. J. M. Woodworth, Washington. Mr. Barracough, Cambridge. Mr. Berry, Wigan. Dr. Ormsby, Dublin. Mr. Lunn, Egbaston. Mr. Dwyer, Cashel. Dr. James Ross, Ashby Folville. Messrs. Upton and Johnson, London. Dr. Carpenter, University of London. Dr. Cowell, London. Mr. Marshall, London. Mr. Moffet, Galway. Dr. Tolerton, Cork. Dr. Burder, Bristol. Dr. Carvey, West Indies. Dr. Jones, Cork. Mr. Clifton, Fordingbridge. Dr. Bates, Cowbridge. Mr. Jackson, Swymbridge. Dr. Gassa, Brandon. Dr. Douglas, Warrenpoint. Dr. Hayes, Shangaiden. Dr. Sneydy, Kilmallock. Dr. Hanahan, Milltown, Kerry. Dr. Porter, Netley. Dr. Tyrrell, Banbridge. Dr. Marshall, Lamberhurst. Dr. Heffernan, Gouda Oudh. Dr. Graves, Cookstown. Dr. Higginson, Donaghadee. Dr. Gubbins, Hospital. Dr. Stokes, Dublin. Dr. Scott, Westport. Dr. Langstaff, Athlone. Dr. Vickery, Ballinacree. Dr. Scully, Clonmel. Dr. Kilgariff, Dublin. Dr. Clarke, Balleborough. Dr. Harley, Dublin. Dr. Taylor, Wicklow. Dr. Langan, Ballymahon. Dr. Craker, Dublin. Dr. Bradley, Stoneyford. Dr. Bodkin, Tuam. Dr. Greene, Ballyglass. Dr. Ward, Dublin. Dr. Beatty, Dublin. Dr. Murdoch, Dublin. Dr. Gilmore, Malin. Dr. Jacob, Maryboro'. Dr. Patton, Finglas. Dr. Burke, Kiltmagh. Dr. Edgeworth, Longford. Dr. Sadler, Fernoy. Dr. Delandre, Limerick. Dr. Myles, Fawcettown. Mr. E. P. Hayward, London Hospital. Mr. Day, Birmingham. Dr. Alexander Harvey, Aberdeen. Mr. Robertson, Edinburgh. Dr. Gauvin, Paris. Prof. Hinds, Birmingham. Dr. Stevenson Macadam, Edinburgh. Dr. Dudgeon, London, &c., &c.

## BOOKS, PAMPHLETS, AND MEDICAL JOURNALS RECEIVED.

*Materia Medica and Therapeutics.* By D. F. Phillips, M.D. London: J. and A. Churchill.

*Diseases of the Ovaries.* By Lawson Tait, F.R.C.S. London: J. and A. Churchill.

*Hints on Public Health.* By Henry J. Alford, M.D. London: H. K. Lewis.

*The Practitioner.* Sanitarian. Medical and Surgical Review (Australasian). La Presse Médicale Belge. New York Medical Journal. Chicago Medical Examiner. The Detroit Review of Medicine and Pharmacy. The St. Louis Medical and Surgical Journal. Indian Medical Gazette. Tribune Médicale. Public Health. British Journal of Dental Science. Boston Medical and Surgical Journal. The Clinic. Glasgow Medical Journal. Paris Medical Record. France Médicale. Canada Lancet. Pacific Medical and Surgical Journal. Le Progrès Médical. Public Health. Philadelphia Medical Times, &c., &c.

## VACANCIES.

Anderson's University, Glasgow. Professorship in Chemistry. Applications to be lodged with the Secretary at once.

Bristol General Hospital. Physician's Assistant. Salary, £50, with board and lodging. Applicants must address the Secretary.

Queen Charlotte's Lying-in Hospital, London. Resident Medical Officer. Particulars of the Secretary.

St. Luke's Hospital, London. Clinical Assistant. Board, lodging, &c., but no salary. Applications, under cover, to the Secretary.  
 Convalescent Hospital, Wimbledon. Resident Medical Officer. Salary, £75, with board, &c. Further particulars of the Secretary of St. George's Hospital.

Carlisle Dispensary. Assistant House Surgeon. Salary, £90, with apartments, &c. Address the Hon. Sec.  
 Hull Dispensary. Resident Surgeon. Salary, £150, with house, &c. Address the Hon. Sec.

Northampton Infirmary. Dispenser. Salary, £100 per annum. Further particulars of the Secretary.

York Lunatic Asylum. Resident Medical Superintendent. Salary, £300 per annum, with residence, vegetables, coals, gas, &c. Applications to the Committee, under cover to the Secretary, Bootham, York.  
 Newcastle-on-Tyne Infirmary. Senior House Surgeon. Salary, £100 per annum, with board and residence. Particulars of Dr. Page at the Infirmary.

Southport Convalescent Hospital. Resident Medical Officer. Commencing salary at £80, with board and attendance. Applications to the Chairman of the Hospital.

Gloucester County Prison. Surgeon. Salary, £175 per annum. Full particulars on application to the Governor.

Sunderland Infirmary. Junior House Surgeon. Salary commencing at £60 per annum, with board and residence. Address the Secretary to the Medical Board.

#### APPOINTMENTS.

CADDY, H., M.R.C.S.E., L.S.A.L., Junior House Surgeon to the Royal Southern Hospital, Liverpool.

FERGUSON, J., M.A., Professor of Chemistry at the University of Glasgow.

FRASER, J., M.D., C.B., an Hon. Physician to Her Majesty.

HEOBOTHAM, E., M.D., M.R.C.S.E., Medical Officer and Public Vaccinator for No. 3-4 District of the Shepton Mallet Union.

HYATT, J. T., M.R.C.S.E., L.R.C.P., Medical Officer and Public Vaccinator for No. 3-1 District of the Shepton Mallet Union.

JEFFERSON, T. J., M.D., M.R.C.S.E., Medical Officer for the Market Weighton No. 1 District of the Pocklington Union, Yorkshire.

JULIE, H. E., M.R.C.S., L.S.A., House Surgeon to the Female Lock Hospital, Paddington.

OWEN, Mr. C. A., Assistant House Surgeon to the Royal London Ophthalmic Hospital.

REID, G., M.B., C.B., House Surgeon and Secretary to the Staffordshire General Infirmary, Stafford.

WALKER, C. E., M.R.C.S.E., Medical Officer and Public Vaccinator for No. 8 District of the Chesterton Union.

WARSTER, J. H., M.R.C.S.E., L.R.C.P.Ed., Medical Officer and Public Vaccinator for No. 1 District of the Nottingham Union.

WILLIAMS, W., M.D., C.M., M.R.C.P.L., Senior House Surgeon to the Royal Southern Hospital, Liverpool.

ARMY—MEDICAL DEPARTMENT.—The Christian name of Surgeon-General Frazer, M.D., C.B., who was appointed Honorary Physician to Her Majesty in the *Gazette* of Aug. 11th, 1874, is "John," and not "James," as therein stated.

To be Surgeons Major—Surgeon S. K. Ray, vice H. M. Fraser, M.D., retired upon half-pay; Surgeon T. W. Wright.

To be Surgeons—L. B. Ward, Gent., T. J. Gallwey, M.D., W. B. Miller, M.B., G. B. Hickson, Gent., B. R. Ingle, M.D., J. Prendergast, Gent., W. S. Pratt, M.B., C. C. H. Smyth, M.D., J. A. Smith, Gent., J. Martin, Gent., P. S. Young, M.B., J. J. Greene, M.D., N. McCreery, Gent., J. A. Gormley, M.D., J. E. V. Foss, M.D., C. P. Turner, Gent.

#### Marriages.

ALFORD-SMART.—On the 26th ult., at All Saints' Church, Preston, Gloucestershire, William Alford, Esq., son of Stephen S. Alford, F.R.C.S., Haverstock Hill, London, to Mary Ellen Smart, of Northcote, Chichester.

DORIN-ARKINSON.—On the 27th ult., at All Saints', Notting Hill, Arthur F. L. Dorin, M.R.C.S., of Clapham, to Eva Catherine, daughter of the late Captain George F. Atkinson, Bengal Engineers.

KENNY-COLLINS.—On the 19th ult., at Holme-on-Spalding Moor, by the Rev. G. A. Shanahan, Pastor of Holme Hall, York, assisted by the Rev. C. F. Kenny, of Limerick, brother to the bridegroom, and the Rev. F. Correll, M. A. Kenny, L.R.C.P.Ed., to Annie Mary, only daughter of George Collins, Esq., Holme, York.

PAER-FRICE.—On the 12th ult., at Standish, Lancashire, William S. Paer, M.B. Lond., to Margaret Elizabeth, eldest surviving daughter of John Llewellyn Price, M.R.C.S., Standish.

#### Deaths.

ASHLEY.—On the 28th August, Wm. H. Ashley, M.D., of Ladbroke Square, London, aged 56.

BINDLOSS.—On the 22nd August, Jas. Bindloss, M.R.C.S.E., of Oakfield, Cheshire-Hulme, Cheshire, aged 45.

CAUTLEY.—On the 16th August, Henry Cautley, F.R.C.S.E., of Hedon, near Hull, aged 76.

CLARKE.—On the 22nd August, at Wood Green, N., Edward Griffiths Clarke, M.R.C.S.E., L.R.C.P.Ed., aged 81.

CONOLLY.—On the 24th August, at High Street, Camden Town, N.W., Michael Alfred Conolly, M.R.C.S.E., aged 43.

HAWKINS.—On the 27th August, at Colet Place, E., Jas. Hawkins, M.R.C.S., formerly Assistant-Surgeon on the Staff, Headquarters Cavalry, Waterloo, aged 80.

HILL.—On the 26th August, Samuel Hill, F.R.C.S.E., of Wimbomb, Dorsetshire (formerly Medical Superintendent of the North and East Ridings Lunatic Asylum, Clifton), aged 63.

JAMES.—On the 18th August, Edward James, M.D., of Parkfield, Portland Road, Edgbaston, aged 67.

JAMES.—On the 22nd August, Alfred James, M.D., of Argyle House, Forest Hill, aged 46.

LEITCH.—On the 28th August, John Leitch, L.F.P. & S. Glas., of Monteth Row, Glasgow.

Established 1848.

### PROFESSIONAL AGENCY AND MEDICAL TRANSFER OFFICE.

50 LINCOLN'S INN FIELDS, W.C.

J. BAXTER LANGLEY, LL.D., M.R.C.S., F.L.S., &c. (King's Coll.), and Author of VIA MEDICA.

Has always upon his books a large number of desirable Investments and available Appointments for negotiation.

The business of the Professional Agency is based upon the general principle, that no charge is made unless work has been done and services rendered.

No Commission charged to Purchasers.

Full information as to terms, &c., sent free on application.

Office hours, from 11 till 4; Saturdays excepted.

COMPETENT ASSISTANTS provided without expense to principals. No Gentlemen recommended whose antecedents have not been inquired into.

PRACTICES AND PARTNERSHIPS NOW OPEN for Negotiation (in addition to those advertised in Dr. Langley's List, which is sent post free on application).

Y 950. In the Suburbs of London, an OLD-ESTABLISHED PRACTICE, yielding £1,000 a year. Patients good class. All appointments have been declined. Visits, 4s. and upwards; midwifery chiefly £2 2s. and upwards. One horse and carriage sufficient for the work. The house is well situated in a pleasant and healthy locality, contains eight rooms, and is held on beneficial lease at a rental of £80 a year. The whole Practice is easily worked, and the connection lies within a small area. The Incumbent is retiring from the profession.

Z. 13. GLOUCESTERSHIRE. PLEASANT COUNTRY PRACTICE, realising about £500 a year, FOR TRANSFER. Midwifery fees chiefly £2 2s. No opposition. Appointments bring in £60. The house is convenient, with stabling, coach-house, &c. A thoroughly efficient introduction can be given.

Z 12. In a pleasant and prosperous town in the Midland Counties, A WELL-ESTABLISHED PRACTICE, yielding between £800 and £700 a year. Patients good middle class. The house is the best in the town, contains sixteen rooms, with offices, stabling, and coach-house. Rent, £90. A smaller professional residence can be had if required, as the Incumbent desires to enter upon a partnership conditionally arranged elsewhere. Liberal terms would be conceded to a suitable purchaser.

Z 11. Near the sea-side. In a pleasant town, a WELL-ESTABLISHED PRACTICE FOR TRANSFER on easy terms. The present receipts average about £470 a year. Easily worked appointments produce about £300 a year. No assistant required. One pony sufficient for the work. Large and convenient house, with garden, stabling, and coach-house. Rent, £30. There are about sixty midwifery cases a year, the majority at £1 1s. Only one opponent. Premium, one year's purchase, part of which may be left on security to suit the convenience of purchaser. An effective introduction as long as desired.

Z 10. NUCLEUS in LONDON, N. Great scope for increase. Very desirable residence. Rent, £75. Present receipts average about £10 a month. Fixtures to be taken at valuation. No premium required.

Y 982. EXCELLENT FAMILY PRACTICE in a prosperous and pleasant town, containing 28,000 inhabitants. Midwifery fees, £1 1s. to £5 5s. Receipts average £1,700 a year. The work can be done with one horse. A most effective introduction can be given, and to a doubly-qualified gentleman accustomed to good society the Practice presents a safe and desirable investment.

Y 999. PARTNERSHIP, with SUCCESSION, in an old Cathedral Town. The present receipts average upwards of £700 a year. The locality is picturesque, and there is great scope for increase. Books open to full investigation to a suitable gentleman accustomed to good society. Easy terms of payment would be conceded.

## THE LONDON HOSPITAL and MEDICAL COLLEGE.

The next WINTER SESSION will commence on Thursday, October 1st, 1874, when the Introductory Lecture will be given at 3 p.m., by SAMUEL FENWICK, M.D., Assistant-Physician to the Hospital.

General Fee to Lectures and Hospital Practice, 90 guineas, payable in two instalments of 45 guineas each. Library Fee, £1 1s. Specialties can be made to Lectures or Practice.

The Hospital contains 600 beds. The In-patients during 1873 were 5,613, and the Out-patients 43,803; total, 49,421.

The Following Prizes and Appointments are offered, without any further payment, to Students paying the general fee of 90 guineas:—

Seven Scholarships to be offered for competition in the Winter Session:

1. A Scholarship of £30 to the Student of less than three months' standing who passes in October the best examination in the subjects required at the Preliminary Examination.
2. A Scholarship of £20 to the Student of less than three months' standing placed second in the above examination.
3. A Scholarship of £20 in Human Anatomy for first year Students; to be awarded in April, 1875.
4. A Hospital Scholarship, value £25, in Anatomy, Physiology, and Chemistry, for first year and second year Students; to be awarded in April, 1875.
5. A Hospital Scholarship, value £30, for Clinical Medicine; to be awarded in April, 1875.
6. A Hospital Scholarship, value £30, for Clinical Surgery; to be awarded in April, 1875.
7. A Hospital Scholarship, value £30, for Clinical Obstetrics; to be awarded in April, 1875; and a Prize of £5 to the Student who has attended most Midwifery cases for the Hospital during the preceding twelve months.

The Duckworth Nelson Prize, value £10, for Practical Medicine and Surgery (Biennial), 1875.

Money Prizes to the value of £60 given annually by the House Committee for seal in Dressing Out-patients and knowledge of Minor Surgery.

For particulars as to appointments, &c., see the Prospectus, which will be forwarded on application to the Bedell of the London Hospital Medical College, Turner Street, E.

Further information may also be obtained from Mr. JAMES E. ADAMS, Treasurer, 10 Finsbury Circus, E.C.; or Mr. WARREN TAY, Vice-Dean, at the Medical College.

## SAINT MARY'S COLLEGE, CONWAY, N. WALES.

Conducted by Oxford and Cambridge University Men,  
A qualified Surgeon being a  
Resident Master.

The Course of Instruction comprises the Greek, Latin, French, and German languages; Classical Composition, English Grammar and Composition, Geography, Ancient and Modern History, Writing, Arithmetic, Mapping, Book-keeping, Algebra, Mathematics, Mensuration and Land Surveying, Drawing, Natural Science, and Music. Lectures are periodically delivered by the Principal on Natural Philosophy, Chemistry, and Astronomy, accompanied by illustrations and experiments.

## TERMS:—

£40 per Annum under 13 years.  
£50 " " over 13 "

These Terms include the whole Course of Instruction; but brothers are received at a considerable reduction.

## HOURS:

8 to 11, and 1.30 to 3.30. Preparations from 4 to 5.30. Dinner at 6, after which the boys go out under the care of a master for a ramble on the mountain or for a stroll on the sea shore. Pupils who are able to swim go, under the immediate care of the Head Master, for bathing at 11.15.

As a recreation, pupils are instructed (their Parents consenting) in Drilling (by a Commissioned Officer in the Army, who is also a Master in the College), Swimming, Rowing, Boxing, Fencing, Dancing, Single Stick, Gymnastics, and all the other requisites of a Gentleman's education—Riding and Driving alone being extras. There is also a Reading-room in the house, supplied with the principal daily and weekly papers, for the use of the Pupils. Great attention is paid to the morals and the manners of the Pupils. Corporal punishment is not allowed under any shape or form.

Monthly Reports of conduct and progress are sent to the Parents, and a Monthly Holiday is given by the Head Master to those Pupils only who have given satisfaction during the month.

The Michaelmas Term will begin on the 1st September; Lent Term, 1st February; and Easter Term on May 1st.

No notice is required before the removal of a Pupil, and boys may enter at any time, charge only being made for the part of the Term during which they have been present. Fees for one Term to be payable in advance—the balance in case of removal will be returned.

Applications for admission to be made to J. R. KENNEDYBELL, Esq., 9A Sackville Street, London, W.

## WESTMINSTER HOSPITAL MEDICAL SCHOOL.

Opposite WESTMINSTER ABBEY.—The SESSION 1874-5 will commence on THURSDAY, OCTOBER 1st, with an Introductory Lecture by Dr. POTTER. The Address will be followed by the Distribution of the Prizes, and a Conversation in the Board-room. The new Physiological Laboratory will be completed by October 1st.

The Examination for the Entrance Scholarship will be held on the 2nd and 3rd of October.

5th August, 1874.

GEORGE COWELL, Dean.

## BRISTOL MEDICAL SCHOOL.

The WINTER SESSION will commence on THURSDAY, October 1. Prospectuses may be obtained on application to

GEORGE F. BURDER, M.D., Hon. Sec.  
Medical School, Old Park, Bristol,  
August, 1874.

## ST. THOMAS'S HOSPITAL, ALBERT EMBANKMENT, WESTMINSTER BRIDGE, S.E.

The MEDICAL SESSION for 1874 and 1875, will commence on THURSDAY, the 1st OCTOBER, 1874, on which occasion an ADDRESS will be delivered by Mr. MACCORMAC, at Two o'clock.

Gentlemen entering have the option of paying £40 for the first year, a similar sum for the second, £30 for the third, and £10 for each succeeding year; or, by paying £105 at once, of becoming perpetual Students.

Private Classes for Students preparing for Matriculation, and for the Preliminary Scientific Examination of the University of London, or for other Examinations, are conducted by members of the Staff, and embrace instruction in Chemistry, Natural Philosophy, Botany, and Comparative Anatomy. These Classes can be attended without entering at the Hospital.

## PRIZES AND APPOINTMENTS FOR THE SESSION.

THE WM. TITE SCHOLARSHIP, founded by the late Sir WM. TITE, C.B., M.P., F.R.S., the proceeds of £1,000 Consols, tenable for three years.

First Year's Students. WINTER PRIZES—£20, £15, and £10. SUMMER PRIZES—£15, £10, and £5.

Second Year's Students. WINTER PRIZES—£20, £15, and £10. SUMMER PRIZES—£15, £10 and £5. The Dresserships, and the CLINICAL and OBSTETRIC CLERKSHIPS.

Third Year's Students. WINTER PRIZES—£20, £15, and £10. Mr. GEORGE VAUGHAN'S CHERLTON MEDAL. THE TREASURER'S GOLD MEDAL. THE GRAINGER TESTIMONIAL PRIZE. THE TWO HOUSE PHYSICIANSHIPS. THE TWO HOUSE SURGEONIES. THE RESIDENT ACCOUCHERSHIPS. TWO MEDICAL REGISTRARSHIPS, at a Salary of £40 each, are awarded to Third and Fourth year's Students, according to merit.

The SOLLY MEDAL, with a Prize of at least 10 Guineas, will be awarded at the end of the Session, to a Student of the Third, Fourth, Fifth, or Sixth years, for the best Report of Surgical Cases.

## MEDICAL OFFICERS.

HONORARY CONSULTING PHYSICIANS.—Dr. Barker and Dr. J. Risdon Bennett.

HONORARY CONSULTING SURGEON.—Mr. Frederick Le Gros Clark.

PHYSICIANS.—Dr. Peacock, Dr. Bristowe, Dr. Clapton, Dr. Murchison.

OBSTETRIC PHYSICIAN.—Dr. Barnes.

SURGEONS.—Mr. Simon, Mr. Sydney Jones, Mr. Croft, Mr. MacCormac.

OPHTHALMIC SURGEON.—Mr. Liebreich.

ASSISTANT PHYSICIANS.—Dr. Stone, Dr. Ord, Dr. J. Harley, Dr. Payne.

ASSISTANT OBSTETRIC PHYSICIAN.—Dr. Gervie.

ASSISTANT SURGEONS.—Mr. F. Mason, Mr. Hy. Arnott, Mr. W. W. Wagstaffe.

DENTAL SURGEON.—Mr. J. W. Elliott.

ASSISTANT DENTAL SURGEON.—Mr. W. G. Ranger.

RESIDENT ASSISTANT PHYSICIAN.—Dr. Turner.

RESIDENT ASSISTANT SURGEON.—Mr. McKellar.

APOTHECARY.—Mr. R. W. Jones.

MEDICINE.—Dr. Peacock and Dr. Murchison. SURGERY.—Mr. Sydney Jones and Mr. MacCormac. GENERAL PATHOLOGY.—Dr. Bristowe. PHYSIOLOGY and PRACTICAL PHYSIOLOGY.—Dr. Ord and Dr. John Harley. DESCRIPTIVE ANATOMY.—Mr. Francis Mason, and Mr. W. W. Wagstaffe. ANATOMY in the DISSECTING ROOM.—Anatomical Lecturers.—Mr. Rainey and Dr. W. Reid. PRACTICAL and MANIPULATIVE SURGERY.—Mr. Croft. CHEMISTRY and PRACTICAL CHEMISTRY.—Dr. A. J. Bernays. MIDWIFERY.—Dr. Barnes. PHYSICS and NATURAL PHILOSOPHY.—Dr. Stone. MATERIA MEDICA.—Dr. Payne. FORANSIO MEDICINE and HYGIENE.—Dr. Stone and Dr. Gervie. COMPARATIVE ANATOMY.—Mr. C. Stewart. OPHTHALMIC SURGERY.—Mr. Liebreich. BOTANY.—Mr. A. W. Bennett. DENTAL SURGERY.—Mr. J. W. Elliott. DEMONSTRATIONS MORBID ANATOMY.—Dr. Payne. MORBID ANATOMY and PRACTICAL PATHOLOGY.—Mr. H. Arnott. MENTAL DISEASE.—Dr. Wm. Rhys Williams.

T. B. PEACOCK, M.D., Dean.

R. G. WHITFIELD, Medical Sec.

Any further information required will be afforded by Mr. WHITFIELD.

## ST. GEORGE'S HOSPITAL MEDICAL SCHOOL.—The WINTER SESSION will commence on THURSDAY, 1st OCTOBER, with an Introductory Address by Dr. Dickinson, at 4 p.m., in the Hospital.

The system of Clinical Teaching has been arranged so as to afford every student personal instruction in the wards from the Physicians and Surgeons themselves.

The courses of Lectures on Physiology and Surgery have been remodelled in conformity with the new regulations of the College of Surgeons.

Special departments have been organised for practical instruction in Midwifery, Ophthalmic Practice, Skin Diseases, Vaccination, and Dentistry. Lectures on Public Health are given by the Lecturer on Medicine.

Pathology, Morbid Anatomy, Psychological Medicine, and Comparative Anatomy are taught in distinct courses.

Instruction is given in all the special modes of medical and surgical investigation.

The following paid offices are offered for competition annually—viz., Obstetric Assistant, Curator of the Museum, Demonstrator of Anatomy, Medical and Surgical Registrars.

The House-Physicians and House-Surgeons are selected by merit from among the Perpetual Pupils without payment, board and lodging in the Hospital being provided at the expense of the Governors.

The Wm. Brown Exhibitions of £100 per annum, tenable for two years, and £40 per annum, tenable for three years; the Brackenbury Prizes of £35 each annually, are awarded, along with various other prizes, by competition among the students.

The prospectus may be obtained by application to the Secretary at the Hospital, and any further information will be given by Dr. Barclay, Treasurer, or Dr. Wadham, Dean of the Medical School, either personally or by letter.

# The Medical Press & Circular.

"SALUS POPULI SUPREMA LEX."

WEDNESDAY, SEPTEMBER 9, 1874.

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## American Communications.

### ILLUSTRATIONS OF THE LITERATURE OF QUACKERY. (a)

By HENRY GIBBONS, M.D.,  
Editor of the *Pacific Medical and Surgical Journal*.

THAT "people like to be humbugged" is a saying more practical than elegant; and it is exemplified, more than in any other way, in the universal currency given to impostors and impostures that concern the public health. Physicians are often censured for not taking more pains to separate the false from the true, the spurious from the genuine, in medicine and medical practice, so that people may discriminate between them. If the discrimination were made, it is not certain that the popular current would be turned in the right channel. There is no doubt that many persons would be more attracted, as indeed they are already, by the meretricious trappings of charlatany than by the more sober claims of science and truth. Whether for good or for evil, I propose, on the present occasion, to give utterance to some thoughts and observations bearing on this subject.

A large proportion of the patent and secret medicines with which simple-minded people delight to experiment on their organs, have been stolen from the regular profession. A patient who believes that he has been cured by a certain prescription grows enthusiastic in favour of the remedy, and recommends it indiscriminately. It is surprising what multitudes of men and women will advise medicines and what multitudes will swallow them on this primitive logic.

With better judgment and better opportunities, apothecaries sometimes prostitute their office and beget nostrums. Behind the counter, handling prescriptions, they have frequent means of ascertaining the effects of certain agents or combinations on certain diseases. Appropriating to their

own illegitimate purposes the knowledge thus procured through the patients of the medical man who confides to them his prescriptions, they add to the already prolific spawn of secret cure-alls. Thus they become not only prescribers but quacks and nostrum-mongers.

The only female apothecary I ever knew flourished in my native town in the State of Delaware, when I was a lad. She was well educated for that day, and she educated herself still further by gathering from her customers all the information she could obtain as to the diseases which the prescriptions that they brought to her were designed for and the effects. This information she recorded in a book kept for the purpose. Her ingenuity and industry were rewarded by a valuable clinical record, more complete and more practical, most likely, than any which were kept by the doctors who wrote the prescriptions. In this way she learned the art of prescribing. It so happened that my father, who was a physician, was in the habit of prescribing for the flatulent colic of infants a mixture containing oil of anise, with magnesia or chalk. The female apothecary soon discovered the value of the preparation, and forthwith engaged in the manufacture and sale of it on her own account, announcing it as "*Dr. Gibbons's Colic Drops*." My father detested quackery in all its phases, and I well remember his consternation when he discovered that his prescription had been converted into a nostrum and his name identified with it in this manner.

I may remark in passing that "*Mrs. Winslow's Soothing Syrup*" owes much of its virtue to oil of anise, and that it is essentially a mixture of this oil with morphia—the latter in variable proportions, but in quantity sufficient to have proved fatal in a number of well-attested cases. In fact, "*Mrs. Winslow's Soothing Syrup*" is one of the most dangerous nostrums in the market; nevertheless, it is sold by apothecaries in general, and by some even placarded conspicuously in their windows!

The senior members of the profession will recollect a long string of "panaceas," "catholicons," pulmonic balsams, and so forth, commencing with "Swain's Panacea," about half a century ago. An ignorant book-binder in New York, who could not even write his name, contrived a disreputable disease, for which he was

(a) Read before the California State Medical Society at the Annual Meeting.

treated by Dr. Quackenboss, then an old practitioner in that city. He was cured by the aid of a preparation of sarsaparilla, similar to the French *syrup de cuisinier*, the formula for which the doctor kindly gave to his patient, that he might save expense by manufacturing it for himself. Swaim removed to Philadelphia, and conceived the idea of turning his personal experience to profit. He made a quantity of syrup and took it to the Pennsylvania Hospital, and asked permission to give it to some of the patients. The patients appeared to be benefited, and Swaim then requested Professors Chapman and Gibson, visiting physician and surgeon of the Hospital, to give him their estimate of it in writing. This they did, thoughtlessly, after being apprised of the ingredients. Shortly afterwards "*Swaim's Panacea*" came out in the newspapers in flaring capitals, with the certificates of the two distinguished professors, which also headed a large pamphlet filled with certificates of wonderful cures performed by it. At once the nostrum was received into popular favour, and the sales of it soon became enormous. It was even exported in large quantities to the West Indies, South America, and Europe. Swaim, who had learned to write his name in order to affix it to his labels, made a splendid fortune, and built himself a palatial residence in Chestnut Street. Both he and his distinguished endorsers have gone to their long rest—he exultant with triumph, the professors annoyed to the last by chagrin.

Some thirty years ago there lived in the southern part of New Jersey a mechanic, or labouring man, who suffered a long time from chronic diarrhoea. He was cured at last by a prescription obtained from a physician residing, I think, at Port Elizabeth. He removed to Philadelphia and transformed himself into a doctor more promptly and more economically even than doctors are wont to be made by the bastard manufactory of the man called Dr. Buchanan. And so "Dr. Jayne" and his "Carminative Balsam" had their birth. By the foolishness of advertising the Carminative Balsam became a success. The name of Jayne acquired value as capital in trade, and was used to give currency to vermifuges, expectorants, and other preparations. And thus did the obscure and ignorant farm-hand become a doctor and a millionaire, not so much by his brains as by the accident of a bowel complaint.

If the charlatan be an ignominious, he must employ some one to run the literary department—to write up advertisements and certificates of cure. The imagination of an adroit liar is capable of supplying the certificates. These require a professional varnish, however, and for this purpose it is customary to hire some thread-bare doctor—some child of genius and misfortune who has fallen by the wayside in the battle of life, and who sells his soul to save his body from starvation.

The "natural bone-setters" are a curious variety of the human race. They possess by nature the gift of bone-setting, handed down from the seventh son of the seventh son, or some equally valid inheritance. It was my good fortune, just after taking my degree in medicine, to fall in with "Doctor Sweet," the great natural bone-setter of that period, and to enjoy a half day's clinic at his elbow. He had come all the way from Connecticut, or New York, at the solicitation of some individuals of easy faith, to manipulate a lot of cripples in my native town; and I was glad of the opportunity to accompany him and witness his performances.

One of the patients on whom I saw him operate was an Irish gentleman, with sub-acute rheumatism of one arm, every joint from the shoulder to the extremities of the fingers being stiffened and painfully sensitive. He began with the shoulder, twisting and turning the inflamed joint forcibly in all directions, remarking—"I will soon fix it for you."

"Doctor," I enquired, "do you consider that joint dislocated?"

"No, it is shot," was the answer.

"You mean it is out of joint?"

"No, I mean no such thing. It is shot."

"Well, you mean to say the bones are not exactly in place."

"I mean just what I say, the joint is shot."

And that was the only idea of his pathology that I could gather. From the shoulder he proceeded downwards, using the same forcible movements with each joint. Reaching the fingers, he planted his thumb in the palmar surface of every articulation and bent the joint with violence, the poor patient roaring with agony at each successive operation, and begging piteously that the delicate process be suspended long enough for him to swallow a glass of brandy. It is needless to say that injury, not benefit, followed such treatment.

Sweet was extremely ignorant, and purposely so. He knew that success in a man of no education would dazzle the vulgar; and he knew also that the term *vulgar*, in that application of it, includes people generally. He intended that his "gift" should sparkle like a diamond on a dung-hill. His pathology was embraced in the one word, "shot;" and his therapeutics in the one word "fix." He often fixed a greater number of bones than are counted in osteology. A medical student who was present on the occasion referred to, now Dr. R. R. Porter, of Delaware, asked him if he had ever examined a skeleton. He did not know the meaning of the word, but exclaimed, after a repetition of the inquiry, "Oh! you mean an *anotomy*. I seen one once, but did not examine it. I had no occasion to do so. I don't want to know any thing about the bones. It might interfere with my gift."

Old Californians will remember "Dr. Young," the pioneer quack of the Pacific Coast. He was an upholsterer and nothing more, until his sudden transformation into a doctor, which required but a single night. He flashed into fame and into business through the institution which graduates nearly all the quacks in the world—the newspaper press.

There was a vein of honesty in Young's character. Realising his own inability to treat disease, he prescribed by proxy. Of this I was first apprised by the following incident. Being called in consultation in the case of a sick child, late in the evening, it became necessary to appoint an hour for another meeting with the attending physician on the day following. That gentleman was a well educated medical man, but unfortunately he had been ensnared and shorn of his locks by the Circe of our profession. He could meet me only before eight in the morning, and after six in the evening. I was much surprised by this announcement, until he explained the reason. "I am ashamed to own it," said he, "but I am in the service of Dr. Young. I have a family, and I could not see them starve. My professional pride is humbled by the position, but the case is one of necessity. Young never prescribes for his patients. He sits at the desk in the reception-room and arranges and receives the fees, and then refers them to me in the private office. I pass for the doctor, and Young for my clerk. He pays me \$250 a month, and my time is his exclusively, from 8 A.M. till 6 P.M."

Both these individuals have long since gone to their graves. But "Dr. Young's Institute" still lives, and his name is still employed to attract persons who are fond of certain flavours.

Twenty years ago there was a shop boy in a dispensary in this city who performed the duties of his office for the moderate compensation of \$40 a month. He was of European birth, well educated, and of pleasant manners, attentive to business and economical. He withdrew amicably from the service of his employer, and investing his savings in the press, he came forth one morning as a newspaper graduate, a full-fledged physician and surgeon, of infinite celebrity and experience in Europe. He was the most adroit and gentlemanly of our California charlatans, and perhaps the best qualified and the most successful. Some time after this *début* he announced himself as a graduate of the regular Philadelphia school. Regarding this as impossible, I wrote to the dean of the school for information, and learned that it was really so, and that he had obtained an *ad eundem* degree by exhibiting anti-



monials of the highest order from medical schools in Europe. The mystery was subsequently explained by the discovery that he had a brother in Philadelphia whose testimonials he had borrowed, and whose character he had assumed. His career was brilliant and lucrative. In the list of treasure shipments published at the departure of the steamers, his name always appeared as a large shipper. It was ascertained however that he was in the practice of paying other shippers to enter their remittances in his name.

Thus "by hook and by crook" did he accumulate a fortune sufficient to warrant him in retiring from business. Shaking from his feet the dust of quackery, he mounted to a respectable position in society, and now enjoys his *otium cum dignitate*, unmoved by needless contemplation of the hole of the pit from whence he was digged.

In former years a man named Jones held forth in Washington Street, as the author and vendor of a "Lucina Cordial," which would strengthen the nerves, impart sexual vigour, and cure all irregularities of females. This man sent for me to prescribe for his wife. Her case, as represented both by her and by himself, was so exactly that for which the "Cordial" was advertised as an infallible cure, that I could not avoid asking him if he had tried it on her. He answered with a significant movement of one eye, "I don't give that in my own family."

In California, as in all other parts of the world, there are "Worm Doctors." Some man of stomach becomes a victim of parasites, and is made acquainted through a medical prescription with the virtues of male fern—the insecticide mostly employed by these worm-killers. Forthwith he gathers up all the tape-worms and other entozoic prodigies which cats, dogs, and human beings can supply, displays them in his window, and talks and writes tape-worm, knowing that a large percentage of men and women who see and read will be converted, and will come for his medicines. On this hobby has many a perfect ignoramus crawled into celebrity and affluence.

There is an old story of two fellows who embarked in a speculation in itch-ointment. One of them had the disease, and travelled through the country shaking hands most affectionately with every body. The other, who had the ointment, followed in a week or two, selling the cure. A game something like this belongs to the art of quackery. The first step is to make patients, and this can be done by getting people to read about disease. Pamphlets, almanacs, newspapers, distribute the infection. It requires but little knowledge of human nature to discover that reading of diseases causes persons to fancy themselves sick, and sometimes even makes them sick.

The weakest part of a man's body in this respect is the sexual apparatus. It is the easiest thing in the world to convince a man who has ever been diseased in these organs that the disease is still in his system, or to convince him that he is suffering, or will suffer, from indiscretions, however trifling, of his former life. Here are the two cords on which charlatans play with terrific success—private disease and seminal weakness. In this city, as in every large city in the world, there are at any given time hundreds, if not thousands of men, who have been startled from their daily labours in the mines and fields and workshops by reading the well-devised, sensational advertisements which pollute the columns of almost every newspaper. Gathering up their hard earnings, they hie them away to the city and rush into the trap. Their fears are realised, their apprehensions are promoted, and a cure is guaranteed for a fee in advance. Once in the toils, their course is onward and downward, for ever. Without employment, they spend their time in travelling to and from the pool of infection; brooding over their thousand sufferings, fancied and real; perusing the poison literature of quackery; giving and receiving increased trouble by comparing notes with other sufferers like themselves; until, their last dollar and their last hope gone, they lay down to die in a public hospital, or spend their last days in gibbering idiocy.

It is a great mistake to suppose that quackery is a plant which grows only on the miry soil of ignorance. On

the contrary, many of the most mendacious and successful quacks are well educated men and graduates of medical institutions; and many of the best patrons of such impostors belong to the polite circle of society. We have seen in this city a semi-barbarian Asiatic, but little above a brute in intellect and knowledge, patronised by the families of intelligent merchants and bankers. And the most adroit and unprincipled charlatan, perhaps, who ever flourished on the Pacific coast, was a graduate of London.

"Anatomical Museums" as they are called, are advertisements which conceal their real purpose. A large collection in wax exhibits the effects of disease on the organs of generation in both sexes. There is enough of anatomy and pathology in the collection to impart a scientific flavour to the otherwise corrupting and disgusting exhibition. A lecture is embraced in the programme, and this lecture is cunningly framed for the purpose of seducing credulous and imaginative hearers into the belief that they are diseased, and thus drawing them into the toils.

Several years ago I published in the *Pacific Medical and Surgical Journal* the description of an interview which a gentleman of this city had with the proprietor of the museum, and which I procured from his own lips. It was in substance as follows: "The patient is scarcely sick—does not know whether he is sick or well—has heard a lecture at the 'Anatomical Museum,' which is part of the plan, and which has started some apprehension in his mind. A fee of \$5 or \$10 secures a hearing. The urine must be examined while the patient waits. If he be a man of consequence in the community, the 'doctor' puts on large airs and keeps him waiting an hour or two, in the style of the Pontiff and Prince Henry. Finally, the strutting finished, and the impatient patient sufficiently impressed with the preliminary demonstrations, the mountebank sits at his side and proceeds solemnly, 'Now, Mr. Shivers, you must control your feelings and remain composed. I don't wish to alarm you, sir, but you are in a bad way. Your urine is full of animalcules. The microscope shows them plainly. Be tranquil, sir; your case is not desperate: but your blood is full of spermatozoa. Let me show you the danger, sir. (Here the artist draws on paper two parallel lines to represent a bloodvessel, and pencils a number of eels wriggling along endwise). Now, sir, as long as the animalcules swim endwise there is no difficulty. They circulate all about the body without injury. But let one of them get crosswise, so. Don't you see the effect?—to obstruct the bloodvessel instantly? And then you drop dead, sir.'" "Well, doctor, can you cure me? and on what terms?" asks Mr. Shivers. "Certainly, sir; I have two methods. One is the more speedy, but very costly. It requires a medicine which is very expensive. It will cost you \$500. The other is the more common method, and will cost \$300." If the patient is sufficiently psychologised he pays down the money, if he has it. But if he begins to argue on finance, he is told to take time to consider, and to call again. The chances are largely in favour of his returning.

A few years ago a certain healer of disease came down upon us like a divine presence, his feet "scarcely deigning to tread the earth"—in fact, refusing to do so for less than \$50 a visit. He advertised in the newspapers to such an extent that it was rumoured that some of them had entered into partnership with him.

Our people have not forgotten the "King of Pain," who dashed through the State in a splendid vehicle with six white horses, scattered like autumn leaves his advertisements of aconite liniment, the virtue of which he had grown acquainted with by some accident. His knowledge of the materia medica was bounded by this one article, but he was an expert card-player, and invested in gambling the proceeds of his speculation in human credulity. He travelled very fast, and came to a miserable end, through a greater "pain killer" than aconite.

The types of the printer are made to do more pure, un- of the beer-shop, and before long it will be as disreputable

adulterated falsehood, with a smaller portion of truth, in the service of quackery, than in any other department of their application. No person who embarks in the career of charlatanism, or who undertakes to push a nostrum, can have the least hope of success without first throwing away his conscience, and either at once by deliberate design, or slowly by insensible gradations, selling himself to the Father of Lies.

Perhaps I should not have left the peaceful fields of medical inquiry to make this foray upon the bandits of society, were it not for personal grievance. Some twelve or fifteen years ago an individual, somewhere in the mining region, dropped his pick and shovel, and came to this city to practise medicine. His medical education was accomplished whilst the earth was making a single revolution on its axis. To-day he was John Fitzgibbon—to-morrow, "Dr. J. F. Gibbon;" and the transformation was rendered available by ornamenting the walls, and casks, and boxes throughout the city with a handbill displaying a photograph of Esculapius, and announcing "Doctor Gibbon's Dispensary," for the cure of a certain class of disease. At the same time the newspapers of the Pacific coast were stocked with the same advertisement. As I had been in practice here ever since 1850, and had two brothers also practising in medicine in other parts of the State, the name was well-known; and the imitation, in fact, the assumption of it, was too bare-faced an imposture to admit of doubt as to the motive.

From that time to the present I have been the recipient, personally and by letter, of applications for "patent French safes," and for the means of producing abortion, and for the treatment of "weaknesses" and loathsome diseases—applications made in the belief that I was the author of the filthy advertisements in question. Such things show how many persons there are in a community supposed to be intelligent, who are ignorant that the advertising of one's qualifications and cures is held to be dishonourable and disgraceful among all educated and respectable physicians; and that it is invariably a mark of incompetency or of fraudulent design, frequently of both. They also serve to illustrate the extreme loathsomeness of the business carried on by the advertisers in general, and its hostility to the physical and moral interests of its dupes and victims.

The relation of this system of advertising to the practice of criminal abortion is no trifling matter. Advertisers generally manage to convey covertly to parties concerned the intimation of their readiness to perpetrate this crime. They talk of removing female obstructions, and so forth, or they resort to the trick of advising pregnant women not to take their medicines; and though the purport of such publication is well-known, yet there are few conductors of newspapers who refuse to print and circulate them, and thus make themselves accomplices. Thus advertisers and editors are in the daily practice of doing under cover, but knowingly, what would be felony if done openly.

I will not say that advertisers are all abortionists, but I do say that when men calling themselves "doctors," go into the advertising business, they identify themselves with impostors and abortionists, and have no claim on the respect or confidence of society. They throw their reputation on the market and sell it for gold. Their conduct demonstrates that, if they are not abortionists, it is only because the pay is less in that direction.

Certificates of cure with which charlatans bait their hooks are the weakest and most fallacious of human evidence. Never was there a pretender so ignorant, or a medicine so vile or so inert, that could not accumulate thousands of cures, from hypochondriacs, feeble-minded people, charity patients, and accommodating friends, to say nothing of downright forgery, which produces most of the published certificates.

The formula for medicinal bitters in general runs thus: Take of cheapest whisky, an indefinite quantity; of any bitter vegetable, herb, flower, root or bark, q. s. Mix, and flavour with anything or nothing. Put in bottles and employ an expert liar to write labels and certificates. Present a few bottles to editors and clergymen of taste. Advertise

largely and sell for five hundred per cent. above cost of material.

This subject is highly important in its moral relations. Medicated bitters are not used like ordinary medicines, in occasional doses. They are repeated day after day, habitually. Composed, as they are essentially, of alcohol, they lead directly, and often irresistibly, to intemperance. The entire spawn of medicinal "Bitters" are little more than lures to drunkenness. It is surprising that respectable apothecaries sell and distribute them—more surprising still that they originate and invent them. The traffic in medicated "Bitters" is a fraud and a nuisance, calling for legal restraint.

A number of years ago, an individual coming overland with a company to California, served as cook to the company, and was styled "doctor" on that account. He settled in Calaveras County and laboured as a miner, without success. His attention was then turned to the medicinal qualities of the herbs growing about him, and he came to San Francisco with the idea of making and vending a preparation to be called "Indian Vegetable Bitters," and to contain no alcohol. He fell in with an enterprising druggist of this city, who saw money in the project and embarked in it. At the suggestion of the latter, the "Indian" was struck out, and as the new medicine got sour by fermentation, it was concluded to call it "Vinegar Bitters," and to identify it with the movement against alcoholic drinks. The mountain herbs were thrust aside, and aloes, being a cheap bitter, was substituted. "Nine sick people out of ten," said the druggist, "will be cured by purging." Wherefore the aloes. So the cook became doctor, and the decoction became sour, and "Doctor Walker's Vinegar Bitters" began their career in the newspapers.

At that juncture, I one day opened a new number of the *Pacific Medical and Surgical Journal*, of which I was editor, and found to my amazement and mortification a full page advertisement of this nostrum, with all its pretensions duly set forth. The advertisement had been sent to the printing office and inserted without my knowledge. It did not appear again.

A year or more afterwards, a medical gentleman of St. Louis wrote to me inquiring if I had ever endorsed the nostrum, and stating that every bottle of it distributed in the valley of the Mississippi bore my recommendation. The good "Doctor" Walker, or an equally conscientious coadjutor, had copied from the discarded advertisement his own statement of the virtues of the "Bitters," and credited it to me as the editor of the *Journal*!

Is there no way of protecting society against the array of impostors and impostures which prey on health and life? It is not my purpose to answer this question, nor would it be proper to prolong this article. Various expedients have been proposed—such as prohibiting the practice of medicine or the assumption of the title of doctor without a diploma; requiring all proprietary or patent medicines to have their ingredients printed on the label, and so forth. Hitherto laws for the suppression of quackery have done but little good—at least in America. It is difficult to enforce them, and any attempt to do so on the part of physicians is attributed to sordid motives. But the people, not the medical faculty, have need of the protection. Quacks and quack medicines increase the demand for regular treatment, by creating disease and by training the minds of people to morbid action and their bodies to perpetual dosing. They manure the soil for the growth and accumulation of morbid products. If legislatures determine to interpose the shield of law for the protection of their constituents, certainly we shall not object. But law, alone, is impotent. The evil is too deeply rooted for that remedy. I have more hope of success against the nostrum deluge through an infusion of conscience into the "middle-men"—the druggists and apothecaries who stand between the fountain and its distribution, and irrigate the community with the poisonous flood. By their associations, publications and colleges, our pharmacists are fast elevating their business above the standard

for an apothecary to deal in "Bitters" and other nostrums as to sell grog. But the advertising quacks and impostors are more difficult to manage. Arrayed on their side are the ignorance, prejudice, credulity, and other base elements of character in the common people, and above all the annual subsidy of ten millions of dollars, which enables them to purchase and control the periodical press of America.

# INDIAN MEDICAL NOTES.—No. XXIV.

(FROM OUR SPECIAL CORRESPONDENT.)

SIMLA, August, 1874.

"ON LEAVE."

THROUGH the pelting rain this letter will be carried by runners on foot from Simla to the plains, nearly fifty miles, over lofty mountains, then down deep ravines. From Kalka to Umballa the mail cart will be checked by a swollen river, to be crossed by elephants, and from Umballa to Bombay the road is not clear, for near Saharanpore the line is reported to be damaged by the floods. Such being the case, why write at all? why take the trouble to put together matter on paper which may never reach destination? The answer is very simple. It takes years and years to learn how to describe things, the scribbler hoping to overcome by perseverance many difficulties and objections characteristic of each individual style. To write also even a little involves reading, observation, and research, which may not be altogether valueless in after years. One difficulty is the tendency to be erratic, discursive, frivolous, jerky, disconnected, dragging in extraneous twaddle, besides neglecting the weightier matters of the law. To overcome this may be impossible—to improve is the desire. Last Sunday, at Simla, a sermon was preached in aid of a fund to establish female nurses in Indian hospitals. Formerly, governesses coming out here were bound by heavy penalties to remain single. Love laughs at locksmiths, and the husbands either honourably paid the fine or defied the consequences. Some of the marriage announcements are very quaint, the lady generally described as of great beauty and elegant accomplishments, her age and settlements also published. Will these new nurses marry or get into scrapes? Why should they? At Jubbulpore, Allahabad, Meerut, Delhi, Agra, Mussoree, Kussowlee, and Simla, and other places personally visited, there were spinsters. The other day, however, a dandy of comfortable means travelled many miles from the plains to the Laurence Asylum to get a wife; yet, in spite of fine clothes, gold chain, rings, scented pocket handkerchief, bear-greased locks and killing manner, not one of the girls would take him for better or for worse; so down the hill sadly he returned to bachelor solitude. Will these nurses be able to carry on their priceless profession in this climate in August and September, when malarial fevers prostrate all? In England there was an opposition; there were many difficulties which need not be discussed now, connected with female nursing; the intention was excellent, and doubtless the plan will crop up again as the glorious system of sisterhood emerges from the trammels of ignorance, prejudice, and religious controversy. Everybody knows the story of the blister ordered for the sternum being applied to the buttock, and such like anecdotes. Very few have any conception of the strides and progress of nursing in England. In India the sick soldier and the male native nurse have nothing in common, do not understand each other; when the medical officer, having given all directions, returns to his house, perhaps unfortunately some distance off, the nurse may not zealously minister to the constant requirements of the invalid, who may not be able to conquer repugnance to native cooking, or the smell of the hubble-bubble. The best of food, good wine, bedding, and medicines, may, as said before, be tampered with.

In serious cases a trained European, especially a comrade, is invaluable, provided he is sober, not too young or weakly, or specially susceptible to disease, or an idle, useless barrack loafer, or plausible shuffler. In regiments it is easy enough to have a varied choice, which would be impossible in detachments, or a battery of artillery consisting of 150 men, each one urgently required for guns, horses, harness, stables, guards, saddlery, shoeing, &c.; and, before the point is forgotten, my humble opinion is that no man under twenty-five should work in a forge in the hot weather, when also shoeing should be reduced to a minimum. On first arrival in India the want of morning sleep is a difficulty not easy to overcome, for the mid-day snore after food provokes dyspepsia, leading to visceral disease. Soldiers sleep sometimes at their post on sentry until accustomed to the climate. Charles Lamb declined to be the sun's courtier to attend at his morning levées. "The seeds of sleep and mortality are in us; we choose to linger in bed to digest our dreams." But then he was superannuated, and had no public duties to carry on.

The medical subordinate department, as alluded to before, contains many splendid conscientious men, not to be damned by faint praise; still, the medical officer cannot be too often about the hospital, though the running to and fro under a June sun cannot always be done with impunity. Of the two, intense heat is more tolerable than extreme cold. In my opinion, from the experience of India and Canada, but beyond frost bite and certain sequelæ, the after effects of cold are trifling when compared to hepatitis, remittent fever, heat apoplexy, or dysentery. In hospital here, on each patient's diet-sheet, unless a trumpety simple case, it is not a bad plan in pencil to note down in hieroglyphics the daily prominent points—pulse, respiration, temperature, tongue, night report, skin, urine, urea, excreta, local or special symptoms, heart or chest sounds—all can be done in one line, and neither the patient nor Job-comforting friends can decipher the indications when the tide has turned or the danger more imperatively demands attention. How often cholera and other diseases run riot more in hospital than in barracks! How often, again, the prevention of panic is the prevention of the blaze of pestilence! The doubts concerning female nurses in male hospitals do not apply where their services are required to attend the wives of officers or civilians at their homes, or soldiers' families in hospitals. Ladies state that, in addition to the well-known objections, many of the present nurses charge exorbitantly. Where there is no nurse the husband and the medical attendant must perform many offices never imagined in their philosophy, and unless the doctor knows the language, how is he to direct the female servants? What takes place in a regal harem when a little stranger appears was related the other day, or read somewhere. Drinks of hot milk mixed with rice, pease, ginger, and cloves, are given to the mother, and joyful saloos of artillery or a brilliant blaze of fireworks convey the glad tidings that a son is born. For him, for twenty-seven months, a wet nurse will be engaged, whose food, morals, and conduct will be watched day and night by Argus-eyed sentries. On the ninth day (the delivery-room being purified afterwards on the fortieth) the mother, bathed and dressed to receive visitors, accepts presents of silver and gold ornaments, toys, or a cradle. Then is the child bathed for the first and only time, for a year bodily inunction with oil the daily custom after. After forty days the mother rejoins the family circle. Female children receive but little honour, even amongst the aristocracy. During the great festival of the Mohurram, the Mahomedans, husband, wife, and suckling infant, almost starve, and connubial rites are suspended. It is a period of morbid religious gloom, when interference or contradiction leads to bloodshed, and when, night and day, women, beating their breasts until abscesses are provoked, cry "Hassain-Houssen," or, in the vernacular of the British soldier, "Hobson-Jobson." There are marvellous tales of how the natives recover from surgical injuries or operations—for instance, after amputation at the hip-joint for shark bite. Speaking generally, very little do we



know about the natives, their earnest religion, fidelity, love of land, home and kindred, their kindness to poor relations, and respect for the aged. They will lie, drink, and steal; so do enlightened Europeans.

In the dirty bazaars, hot, foul, and steaming, there may be seen the missionaries reading or preaching to the halt, maimed, blind, paralytic natives, perhaps suffering from stone, goitre, or elephantiasis.

Frail, sickly, care-worn look the ambassadors of Christ—heart-breaking, desponding appears the heavenly work; still they persevere, and the reward comes at the day of rest. No fault of theirs is it that converts somewhat largely figure as prisoners in gaols. The names of Ward, Swartz, Marshman, Carey, and others will never die. Francis Xavier, in 1542, at Goa, lived in a hospital, his associates being lepers or condemned felons.

Henry Martyn, the scrofulous son of a Truro miner, after a life of bodily pain, vexation, and disheartening opposition, died at the age of thirty-one. On one occasion, whilst the thermometer rose from  $112^{\circ}$  to  $126^{\circ}$  in a tent, his sufferings were extreme. Receiving an income of £1,000 a year, his heart ever yearned for his old Cornish love, Lydia Grenfell, at Marazion; but most wisely it was ordained otherwise: his lungs and liver apparently were diseased on first arrival. The year of his death, 1812, Adoniram Judson, of Massachusetts, another missionary, then aged twenty-four, was forbidden even to land, much less to preach in Calcutta. Afterwards, for two years, the Burmese kept him chained in a loathsome dungeon; his wife all but died of spotted fever, and the children (one unvaccinated) were attacked with variola. After his release Mrs. Judson's fortitude gave way, and she died with these words on her lips—"I am quite well, only weak," very characteristic of enteric fever. After seven years of widowhood Judson married the widow of a consumptive missionary, and for eleven years enjoyed domestic happiness, increased by children. After thirty years' good service in a tropical climate his wife's health compelled him reluctantly to leave, and at St. Helena again he became a widower. On landing at Boston great was the enthusiasm; evidently, Judson's piety, faith, zeal, and perseverance were all fully recognised. Then, aged fifty-seven, his step was elastic and energetic, and his hair but slightly grey. Very soon again he married for the third time, on this occasion a young lady of literary accomplishments, and to Burmah he returned to work as a missionary, also to complete a dictionary. Three years afterwards, compelled by fever and bronchitis to leave, and nursed by his invalid wife, attended professionally by the captain, he died on board ship, and in the deep blue Indian ocean he sleeps until the sea yields up her dead.

On the subject of Indian gaols, just one word here, to say that at Meerut there are two prisons, one lodging 877, the other 363; the mortality in 1872 being 104 and 46 respectively, increased by cholera, dysentery, diarrhoea, and respiratory affections, attributed greatly to the rise of the level of the sub-soil water throughout the district, thanks to canals. As regards the native army at Meerut the general health appears to be excellent, although phthisis, atrophy, and anæmia are somewhat prominent; the record for 1872 shows but 14 deaths out of a strength of 846; the layer of sandy soil overlying the clay very possibly protecting the native lines, as written before. It may not be true so many fabulous silly stories are palmed off on Anglo-Indians; they do say that natives are let out of prison at stated intervals to increase their families. Lord Amberley should look to this. In an old note-book, now mislaid, occurs a list of individuals who died untended on the field of battle—for instance, the wounded at Agincourt and elsewhere, Picton at Waterloo, Lord Hardinge out here (I think); also instances of fractures, dislocations, strangulated hernia, retention of urine, complicated labours occurring at a distance from professional aid crop up at home as well as abroad. The other day an official of position, a stout unhealthy subject, was seized with apoplexy in a solitary district seventy miles beyond Simla on the Thibet road. His companion, adopting the only means

sends messengers on foot over the mountains to Simla for assistance. Although on leave, and there are two civil surgeons here, this duty (besides the care of several patients, mostly requiring pernitrate of iron for bill diarrhoea) devolved upon yours truly. It was a drizzling wet morning, the mountains and ravines obscured by cotton-wool mist; when unable to walk or ride through slippery slush I was dodged along Guy Fawkes fashion, provided with food, medicines, and appliances; and thus, over the narrow ledges, at an elevation approaching 9,000 feet, rushing from one desolate hut to another, twelve miles off, where coolies are supposed to be found, was the road traversed. "Supposed" is a convenient, elastic, oft-repeated term in India. With the greatest difficulty, imploring, storming, bribing, shouting up the hills and down the dales for men, could fifty-four miles be achieved on a Wednesday and before mid-day on Thursday, the night spent at a rest-house, as the black darkness and the want of coolies stopped progress, sometimes through forests on the brink of awful precipices aggravated by landslips. In the shade in the plains that day the temperature was  $105^{\circ}$ ; in the railway carriages at one place  $108^{\circ}$  compared to  $55^{\circ}$ , as recorded by an accurate thermometer on the road to Nagkanda. The respiration of the horribly smelling stretcher-bearers was also  $55^{\circ}$ , whilst the heart and pulse of Guy Fawkes worked oppressively slow. In the rest-hut at night, whilst shivering with cold over a fire of logs, the danger of chill, the cause of hepatic abscess supplied some notes for a future paper. Bound on such an errand, eager to push on, the anxious mind in no mood to appreciate even Paradise, still, in the intervals between the drenching showers the patient was forgotten in the exquisite scenery forced on attention. Imagine the most triumphant paint-brush effort of Beverley at Drury Lane in those gorgeous sylvan transformation scenes to form the faintest conception of the effects of the sun softly playing on clouds, sky, lofty mountains, and deep ravines, relieved by neatly cultivated slopes of green and gold, or the pines, oaks, cedars, sycamores, the fir-cones of orange or purple bronze, or the red rocks shaded by velvet moss or curious stoncrop, the dark crevices filled by rare delicate ferns close to pleasant-sounding waterfalls, pretty red and white wild roses, anemones, bluebells, honeysuckle, heliotrope, sweetbriar, jasmin, and clover perfume the rarefied air. Even some of the damask flowers of the rhododendra (which poisoned, according to Xenophon, the soldiers, the honey also refused by the Romans) here and there flourished even in June. The ripe wild strawberries, the yellow raspberries looked very tempting. Hazel, bamboo, horse-chestnut, wild cherry, plum, peach, and walnut-trees—some were in fruit, others blazing with blossom. Green parrots and variegated butterflies alone showed themselves; nor did the glowworms in the evening sparkling like diamonds help to lead the way. The sun grandly set at 7, a few stars twinkled soon after; at 9 it was pitch dark, when one lantern very feebly just prevented a fall down the abyss, for the path is entirely unprotected; and many an accident, even in broad daylight, happens on the Himalayas. Most unfortunately, my arrival was too late; indeed, the history of the case left no hope, had the patient even been in a hospital surrounded by the Faculty. I cannot give particulars for a very obvious reason, as the *Medical Times* once pointed out we cannot be too careful not to individualise cases excepting in courts of law or in after years. In the army, also, we cannot be too careful to remember that we doctors are the paid servants of the State, bound through thick and thin our superiors to support, and to tell no tales out of school. In this spirit the wish and intention is to carry on these "Notes," just giving personal experience and dotting down things which appear curious or of professional utility. At Nagkanda there is a glorious panorama of the snows, which a tourist with nothing on his mind would intensely enjoy. After all, thinking over Killarney, Loch Katrine, Windermere, Snowdon, what lovely spots there are in the old country, and, as said before, so far, what beauty can compare with Niagara, changeless as time, old as eternity!

## Hospital Reports.

### ST. VINCENT'S HOSPITAL, DUBLIN.

DR. MAPOTHER'S WARDS.

Clinical Clerk, Mr. C. E. GEOGHEGAN.

#### *Oxalate of Lime Calculus—Lithotomy—Urethral Micturition re-established on Seventh Day.*

PATRICK M., æt. 7½ years, was admitted for the following symptoms, which had begun about a year since: Pain at the end of the penis and in the perineum, which latterly was of the most intense character, incontinence of urine, and occasionally the passage of a few drops of blood. An increased cloud of mucus was the only abnormality in the urine. On sounding, a most distinct, almost metallic click, was heard, and from this circumstance and the great severity of the pain the stone was judged to be of the mulberry kind.

On August 12th lateral lithotomy was performed, the only trouble being the action of the bowels during the operation. The boy was purged with castor-oil the previous day, and two hours before the operation eight ounces of water were thrown up the rectum. An hour afterwards, finding this had not come away, Dr. Mapother injected six ounces more, but all was retained, notwithstanding the utmost efforts of the patient, and the introduction of a tube for several inches up the rectum before and after he was chloroformed.

Just as the first incision was being made a large quantity of water and of indigestible matters, fruit skins, &c., were ejected.

The bleeding was most trifling, and no tube was placed in the wound. From the 22nd hour to the 40th the urine flowed through the penis, then for the next five days through the wound, the swelling of its edges having lessened.

From the seventh day micturition was solely performed through the urethra, the act was under control of the patient, and the stream was thrown a few inches beyond the penis. Two drachms of castor-oil were given on the fifth day, and the bowels were freely moved three hours afterwards.

From the tenth day the boy was out of bed, and on the 19th the wound was healed.

The stone (which is now in the College of Surgeons Museum) is of a rounded form, with twelve sharp spicules about two lines in length projecting, it is two and a quarter inches in circumference, weighs sixty grains, and is wholly composed of oxalate of lime.

The causation of calculus being, and its comparative infrequency in Ireland being subjects of much interest, Dr. Mapother procured the following information concerning the patient's circumstances: He had always lived in Charlemont Street, had been suckled by his mother for sixteen months, and had never drank any water but that of the Vartry, which contains only a grain of lime in the gallon. The only peculiarity about his feeding was that he was fond of sorrel, which he often gathered and ate in large quantities. This plant contains oxalates plentifully, and they appear in the urine after it is eaten. Sorrel is eaten freely by herbivora, and the oxalate of lime is a common calculus with them. His parents, three brothers, and two sisters, were always remarkably healthy, and their hygienic conditions were far above the average of those in like position.

THE *Wiener Med. Presse* says that Prof. Lebert has determined to resign his chair in the University of Breslau and seek in Switzerland (Bex) that rest from his indefatigable labours as teacher, author, and practitioner, which has hitherto been denied him. Prof. Biermer, of Zurich, has been recommended for his place.

## Transactions of Societies.

### THE NEW SYDENHAM SOCIETY.

THE sixteenth annual meeting of the New Sydenham Society was held at Norwich on Thursday, August 13th, Dr. Waters (Chester) being in the chair. The ballot having been taken, the following officers were declared duly elected for the ensuing year. It was moved by Dr. McIntyre (Odiham), and seconded by Mr. Clubbe, of Lowestoft, that the report and balance-sheet, as presented by the Council, being satisfactory to the meeting, be printed for distribution as usual. Mr. Mason, of Bath, moved a vote of thanks to the officers for the past year, and after some formal business, the meeting concluded. Subjoined is a list of the officers elected:—

#### PRESIDENT.

Cæsar H. Hawkins, F.R.S.

#### VICE-PRESIDENTS.

Alfred Baker, Esq. (Birmingham).	*Hermann Weber, M.D.
E. R. Bickersteth, Esq., (Liverpool).	*J. S. Bristowe, M.D.
*Prescott G. Hewitt, Esq., F.R.S.	*Edward Copeman, M.D. (Norwich).
W. D. Husband, Esq. (York).	J. Matthews Duncan, M.D. (Edinburgh).
Sir James Paget, F.R.S. Bart.	*D. Embleton, M.D. (Newcastle).
T. B. Peacock, M.D.	*Edward Long Fox, M.D. (Bristol).
A. P. Stewart, M.D.	George Southam, Esq. (Manchester).
Sir Thomas Watson, M.D., F.R.S., Bart.	W. Stokes, M.D., F.R.S.
C. J. B. Williams, M.D., F.R.S.	

#### COUNCIL.

James Andrew, M.D.	*W. Price Jones, M.D. (Surbiton).
Warburton Begbie, M.D. (Edinburgh).	J. C. Langmore, M.B.
W. H. Broadbent, M.D.	*Joseph Lister, F.R.S. (Edinburgh).
Charles Brooke, Esq., F.R.S.	*Alfred Meadows, M.D.
T. Bryant, Esq.	G. H. Philipson, M.B. (Newcastle).
Thomas Buzzard, M.D.	*Henry Power, Esq.
Robert Ceely, Esq. (Aylesbury).	*W. O. Priestley, M.D.
W. Cholmeley, M.D.	W. Roberts, M.D. (Manchester).
T. B. Crosby, Esq.	James Russell, M.D. (Birmingham).
Thomas M. Daldy, M.D.	Leonard W. Sedgwick, M.D.
J. Langdon H. Down, M.D.	Septimus W. Sibley, Esq.
Dyce Duckworth, M.D.	*Thomas Sympson, Esq. (Lincoln).
Robert Dunn, Esq.	T. P. Teale, Esq. (Leeds).
C. Hilton Fagge, M.D.	William Turner, M.B., F.R.S.E. (Edinburgh).
J. Fayer, M.D.	
*C. J. Hare, M.D.	
T. F. Grimsdale, Esq. (Liverpool).	
*John Hamilton, Esq. (Dublin).	

(Those marked with an asterisk were not in office last year.)

#### TREASURER.

W. Sedgwick Saunders, M.D., 13 Queen St., Cheapside, E.C.

#### AUDITORS.

E. Clapton, M.D. | S. Fenwick, M.D.  
F. M. Corner, Esq.

#### HONORARY SECRETARY.

Jonathan Hutchinson, Esq., 4 Finsbury Circus, E.C.

The report shows the financial condition of the Society as highly satisfactory, there being more than a thousand pounds in hand, in addition to a very valuable stock of books. The principal works which the Society has now in progress are its Atlas of Skin Diseases, which it is intended to continue for some years longer; its Retrospect of Medicine and Surgery, which appears biennially, and a new and revised edition of Mayne's Lexicon, which is in course of preparation. The latter is referred to as follows in the report:—

The progress of the Society has been satisfactory during





fluenced by the violent opposition to improvement which emanated from the Dublin grinders, and from some of the examiners, and an active minority of its own members, and had conceded, in deference to this opposition, a further continuance of the old system, and that system was, at the time of the visitors' report, practically, if not legally, the law of the College. The Visitors, the Medical Council, and the Medical Press, may be congratulated upon the immediate outcome of the strong censure to which the College has been subjected, and the Council of the College deserves credit for having shown a praiseworthy readiness to acquiesce in the views of the visitors. It has been ordered that at the very next examination in November, important reforms, in accordance with the visitors' suggestions, and with the reformed scheme already adopted, should be introduced. The written examination will occupy four hours on a day separate from the *viva voce*, and in the final examination separate days will be given to writing, *viva voce*, clinical examination, and operative surgery, all which alterations are, so far as they go, most excellent emendations, and, when carried into effect by a thoroughly honest method, will go far to make the examination what it ought to be, and to relieve the College from the stigma which a few obstructionists have brought upon it.

It will be observed that the Council does not concur with the visitors as to the method of examining in operative surgery and clinical examination. We refrain from expressing any opinion on these points, because we really think that variations in method are of little moment so long as there is an intention on the part of the Court to make the examinations efficient and reliable tests of the knowledge of the student. If that intention exist, it may be satisfactorily carried into effect by any method, and we feel confidence that the Council will never again permit any part of their examination to be transacted as a sham, which experience assures us would be unhesitatingly exposed by the visitors on the first opportunity.

The Council of the College differs from the opinion of the visitors that there should be a conference of examiners before the passing or rejection of a candidate is decided. They say :—

As regards the suggestion that there should be a conference between the examiners in reference to the value of the marks to be awarded to each candidate, this, in the opinion of this Council, would be most undesirable, as they are strongly of opinion that each examiner should feel himself quite independent and unfettered in forming his estimate of the professional attainments of each candidate. In exceptional cases, however, it is allowed their examiners to hold such conferences, and the visitors themselves, at p. 136 of their Report, mention an instance where such a conference did actually take place.

We adopted strongly the opinion of the Council, and we maintain that the impartiality of the examination hangs upon the fact that the examiner in giving his mark is entirely unaware whether he in passing or rejecting the candidate. Sooner or later a subsequent conference will inevitably lead to an improper tampering with the honest verdict previously arrived at, and will introduce into the result the influences of favouritism, undue severity, or weak-minded lenity.

None of the offences of the College against the examination creed of the Medical Council have brought upon its devoted head so violent a storm of reprobation as the

refusal to hand the candidates' written papers into the custody of the visitors. There can be little doubt that it was here that the shoe pinched many of the members, and aggravated their indignation against the examinational errors of the College. In reply to the remarks of the visitors on this subject, the Council says :—

The grounds which actuated this Council in declining to accede to this unusual request, the adoption of which course, they regret to observe, has been made the occasion for the expression of much hostile feeling against this College, were :—

I. That it was contrary to both the custom and invariable practice of this College to retain or preserve the candidates' written answers after their inspection by the examiners.

II. That at the former visitation of the examinations of this College, conducted by an eminent member of the General Medical Council, no demand was made to be allowed to remove from the hall the written answers of the candidates.

III. That this Council were not aware of any resolution of the General Medical Council authorising the visitors of examinations to demand possession of the written papers.

IV. That this Council were not aware that any other examining body had afforded a precedent for surrendering to the visitors after the termination of the examination the written answers of candidates.

While, therefore, this Council will always be happy to afford every facility for inspecting, in the hall of the College, by authorised visitors, the written answers of candidates, they must continue to regard these answers in the light, more or less, of privileged communications, and not documents which, in any fairness, they can permit to be exhibited outside the College, and possibly printed and published. This Council are, in fact, strongly of opinion that, were they to allow such a course to be adopted, it would be little short of a breach of faith on their part to successful candidates for the diploma of their College. Neither can they see what possible advantage can be got from the publication of the written answers of rejected candidates; and they think that it is hardly a function of the College to add such exposure to the disgrace of a rejection.

Although we cannot assent to all that the Council says we feel that there is a great deal of force in their defence. We are disposed to regard the reprinting of the disgraceful, answers of rejected candidates, as was done by the visitors in their last report, as an unfair and inexpedient use of the written papers, which the College Council is justified in resisting. It is the proper function of the visitors to pass a verdict on these replies; but we are not disposed to think that the publication of these errors *in extenso* is a justifiable proceeding.

As the result of the entire facts which have arisen out of the visitation, we are bound to say that a great benefit has resulted, not only to the profession and the Medical Council, but to the Irish College of Surgeons itself, and we do not hesitate to say that the system of visitation, in which no one had previously any confidence, has acquired a powerful force in the direction of reform of examination. We are very glad to find that the Irish College of Surgeons has had the good sense to take to heart the severe lesson which it has received, and has at once and cheerfully yielded to the plainly just view expressed by the visitors.

#### THE CLUB SYSTEM.

CONTRACT doctoring has within the last week received an interesting and valuable elucidation at the hands of Sir Edward Kerrison, of Oakley Park, near Grantham, who has published some instructive statistics of a "Self-aid Labourers' Medical Club," which has been worked in the local union. The club at Grantham has no fewer than

4,577 subscribing members, besides honorary members, mostly proprietors. The annual rate of payment by subscribing members is, for each person above 16, 2s. 6d.; under 16, 1s. 6d.; under 13, 1s. No extra payment is required from families exceeding five in number. Each midwifery case is charged 6s. The last report shows that nine medical men were engaged, and that they received £689 in the year, or an average of about £76 10s. each. The subscribing members may choose any of the doctors on the club list as their attendant, but must consult the same medical man for a year. If unable to attend at the surgery, the patients are visited at their homes.

Sir Edward Kerrison claims that this club has in great measure supplied the place of parochial medical relief in the neighbourhood, and has thereby effected a considerable reduction in the medical relief expenditure of the union, to which its operations are confined. He points out that, as compared with four other neighbouring unions, the average annual cost per head of the population in the Grantham Union for medical relief is much lower than in the others, being 7s. 9d., against 11s. in one of the others.

These statistics are very cogent to the club question, which is at present one of the most important which agitates the medical profession. Assuming that they prove as much as Sir Edward Kerrison deduces from them, they prove that a very large proportion of the artisan population who in other places obtain medical relief at the public cost are capable of and willing to pay for such relief an amount which, taken in the aggregate, is considered to be reasonable and acceptable remuneration for medical advisers. It is not our function to assess the actual value of the advice and medicine which is furnished at the rate of 1s. per head per annum, nor to form a guess at the probable extent of the midwifery services which are rendered night or day for 6s. It is sufficient for us to be assured by Sir Edward Kerrison that the value given for their money is considered by the "labourers" of Grantham to be sufficient, and to enjoy our own certainty that the services rendered cannot possibly be lower than the payment. It is certainly something gained if the workhouse applicants for medical relief have been converted, by means of this organisation, to the habit of paying for the physicking which seems to be one of their necessities of life. We experience only one apprehension, and that is that the "Labourers' Union may include within its fold a large sprinkling of small farmers and independent shopkeepers, who by its means acquire the advantage (such as it may be) of shilling-a-year doctoring and six-shilling midwifery. In such organisations the line of demarcation is never too tightly drawn, and it may be that this union is actually doing more harm than good by semi-pauperising a class who might otherwise prefer to secure the attendance of their own independent medical adviser.

#### THE INQUIRY AT NEWMARKET.

THE investigation which was held last week into the conduct of Dr. Meade and the circumstances attending the outbreak of small-pox in that town terminated on Saturday last, the Commissioners, as is usual, reserving judgment until they report to the Local Government Board. Dr. Meade was charged at first with having let four weeks

elapse after an outbreak of small-pox before commencing operations, and then devote half an hour to the vaccination of a whole workhouse (including infirmary men's and women's wards and the school), with one lancet, only once charged with lymph.

The accusations investigated on Saturday were—

1. That he knew of the filthy condition of the small-pox patients in the workhouse hospital, and failed to draw the attention of the master to the facts. 2. In entering his attendance upon the patients suffering from small-pox in his medical relief book visits are said to have been made in almost every case for days after the removal or death of the patient. 3. Entering extras, ordered, after weekly account closed. 4. That he expressed his willingness to give a certificate for the removal of George Jeffery, aged 72, to the Heath Hospital. On the 19th of August Mr. C. F. Grey remarked that the man was dying. He would be dead in three hours. Inspector W. Lamb said, "Let us not get into trouble about him if there is any doubt, or, probably, some of us might be charged with manslaughter." Dr. Meade is alleged to have then said, "You take him and I will give you a certificate. If the man dies on the way you will not be such d—d fools as to keep him there; bring him back and we will give him a decent funeral; not that I want to shorten the old man's life, but he has lived quite long enough." Jeffery died the same evening at nine o'clock, about five hours after this consultation.

While the decision of the Commissioners is pending we cannot, of course, enter upon the discussion as to whether the evidence proves these charges or not. We believe we may, without injustice to Dr. Meade, say, that from whatever circumstances, the epidemic of small-pox at Newmarket was not dealt with with any energy or vigour, or apparently with any appreciation of the alarming nature of the epidemic.

We sincerely trust that the Commissioners will not find it necessary to declare the medical officer guilty of conduct so inhuman as that charged against him, for, if they do, there will be no alternative but to deal with such an officer with severity, and his condemnation will inevitably reflect upon the *morale* of the profession, and imperil public confidence in the existing system of medical relief.

## Notes on Current Topics.

### Statistics of Lunacy.

THE Twenty-eighth Report of the Commissioners in Lunacy has appeared. The statistics show that 62,027 lunatics were registered on the 1st of January last, indicating an increase of no less than 1,731 persons as compared with the register of last year. Of the total number 31,371 are accommodated in county and borough asylums, 2,772 in registered hospitals, 4,713 in licensed houses, 358 in naval and military hospitals and the Royal India Asylum, 520 in the State criminal asylum, 15,018 in workhouses, 436 as private single patients, and 6,839 as outdoor paupers. During the last ten years the average annual increase of lunatics has been 1,723 persons, and in the above classification those in workhouses include the inmates of the metropolitan district asylums at Leavesden, Caterham, and Hampstead. A total of 32,878 pauper patients were, on the 1st January last, detained under statutory orders and certificates in asylums, hospitals, and

licensed houses. Two new tables of statistics are added in this report, one of which shows the actual increase or decrease of pauper lunacy in the several union counties as compared with the previous year, and the other gives for the last ten years the annual averages of the admissions, recoveries, and deaths in the several county and borough asylums and hospitals. The statistics of the Commissioners do not include all lunatics, imbeciles and idiots in England and Wales, for, according to the census of 1871, 69,019 such persons then existed, whereas the returns made to the Commissioners for the 1st of January preceding showed but a total of 58,060 persons. Of cases occupying county and borough asylums, the recoveries, as compared with the total admissions, were in the proportion of 33·95 per cent., or 2 per cent. below the average of the last fifteen years, the mortality being also somewhat lower. It is satisfactory to know that, in consequence of the recommendations of the Commissioners, the proportion of post-mortem examinations to deaths has, during the past four years, risen from 40 to 61 per cent.

### Dr. Whitmire, U.S., on Criminal Abortion.

DR. JAMES WHITMIRE (*Chicago Medical Journal*, July, 1874) read a paper on the above subject before the Woodford County Medical Society, at Eurek, U.S.

According to Dr. Whitmire, there seems to be a growing indisposition on the part of American females, married or unmarried, to bear children. The special crime he speaks of "is not confined to any particular class or condition of life—it belongs to, and is practised by, the married and the unmarried, the rich and poor, the learned and the unlearned."

Besides those females who promote abortion upon themselves, there are professional abortionists of both sexes in all the considerable cities of the United States, who, for a consideration, undertake to produce abortion in any case presented to them without asking any questions. This business is carried on to a great extent, and both women and men knowing these things and the probable certainty of relief with but little immediate danger, are more disposed to be loose in their habits than they otherwise would be, because, with the unmarried, in cases of accident, they are enabled to get rid of their encumbrances with but little or no risk of their shame being published.

Some professional abortionists, it seems, both male and female, claim a membership in the profession of medicine, and do a very considerable lucrative practice; avarice is their besetting sin: but professional men and women who are, in fact, educated and qualified in their calling seldom or never engage in this crime against Nature; they have too much professional pride to be bought with gold, or to be influenced by sympathy to be engaged in such practices.

As to the professional abortionist, he and his business are generally known by the lewd of both sexes for miles around; and they are also known to one another in the different cities, so that if a case is likely to be too close at home for complete safety to all parties the victim is sent to the next bloody station, where the operation is performed, and a reciprocity of iniquity is kept up.

It appears, also, that drastic cathartics are largely sold,

called *Professor Bombasticus' Female Pills*, throughout the States, and are much resorted to. "You may step into any country or city drug-store in the State of Illinois and procure, without the prescription of a physician, any one of these reputed abortion-producing medicines, not excepting ergot, bark of the root of the cotton-plant, oil of savin, &c."

"At this moment," says Dr. Whitmire, "I can recall to memory many females who, I have reason to believe, short of absolute knowledge, have frequently produced abortion on themselves, sometimes by violent purgation, lifting, jumping, and even with a blunt probe or uterine sound, either of which they have learned to use by reading obscene books published expressly to impart such information." These are not isolated cases; such exist everywhere, in every village and neighbourhood. This iniquity is not confined wholly to our populous cities, but is practised all over the country to an alarming extent.

"This iniquitous profligacy of human life," says Dr. Whitmire, "and prevalent violation of the laws of our being is one great cause and reason for so few native-born children of American parents according to the number of young married people and in comparison with those of other nationalities around us. This, too, accounts for so few household gods to be worshipped by American parents that would make home happy and overflowing with joy and gladness. This, too, is one of the reasons why we are fast losing our national characteristics and slowly merging into those of our foreign population, who, according to the United States statistics of 1870, are rearing 50 per cent. more children, according to their number, than Americans are doing."

### Anti-vaccinators.

THE difficulties of legislating for the million are amply demonstrated by the account of a demonstration at Gainsborough of some 3,000 people against one of the most useful and important measures ever introduced, notwithstanding cheap education, school boards, and the schoolmaster being abroad—evidently he has not made much impression on the intelligence of the masses; let us hope the application of prison discipline will in the end bring about more practical results. It appears that a workman named Aisthorpe was sent to prison for fourteen days for refusing to have his child vaccinated. After serving the term he was met, upon leaving prison, by some two or three thousand persons, and received an ovation which lasted some minutes. His wife and family were placed in a conveyance, the horse taken out, and the vehicle joined the procession, drawn by his fellow-workmen, the band playing "See the Conquering Hero Comes." In this order the procession passed through several streets to the market-place, where a public meeting was held. A Mr. Wm. Durst presided, and in opening the proceedings thanked the meeting for coming forward to welcome their townsman after his period of incarceration, to which he had been sent for no crime, but for refusing to have the blood of his (Aisthorpe's) child poisoned. A Mr. Johnson, of Lincoln, begged to move the adoption of a memorial from "the people of Gainsborough in public meeting assembled" to Mr. Disraeli and the President of the Local Government Board, praying

for the entire repeal of the Vaccination Acts. The memorial was carried *nem. con.* amid tremendous cheering. Mr. A. Robinson then stepped forward to present his "shopmate," Aisthorpe, with a purse of money which had been subscribed chiefly by working men in recognition of his self-sacrifice in going to prison. Aisthorpe briefly replied, thanking all present, and expressing a hope that no more fines would be paid, but that they would band themselves together and go to prison as he had done. The new Act alluded to by the chairman was then produced, and after being read was burnt amid the cheers, hisses, and groans of the assemblage. The chairman asked the meeting to disperse quietly, which they did after another round of cheering.

### The Sanitary State of Lincoln.

THE City of Lincoln appears anxious, through its representatives, the guardians, to remedy the present unsatisfactory state of things as regards sanitary matters and its consequent unhealthiness. But, as is unfortunately the case, when money is to be spent for some great public improvement, opinion is divided as to the mode of expenditure, and whether it shall be spent at all. For instance, at the Council meeting last week one member said that the health of the city was not nearly so bad as was represented, the death-rate being only 19 per 1,000 of the population; there was, therefore, no need to be in a hurry to ruin the ratepayers by carrying out a scheme about the efficacy of which they were uncertain. On the other hand, the Lincoln papers maintain that Alderman Maltby is entirely wrong, the death-rate in the city averaging last week the enormous figure of 46 per 1,000, being in fact the most unhealthy in the United Kingdom. Certain it is that both cannot be right, and if Alderman Maltby be wilfully misstating the case, we can conceive of nothing more culpable than for a public man to betray his trust for the cheap popularity of the masses.

### Charge of Libelling a Medical Man.

At the Bridgwater Police Court, on August 31, Mr. G. Pain, solicitor, of Bridgwater, was charged with having unlawfully published certain defamatory libels concerning Mr. Charles Forbes Buchan, a medical man practising in that town. Some months ago Mr. Buchan was charged by Mr. Pain with obtaining £200 from him under false pretences; but at the assizes Mr. Justice Lush directed the jury to return a verdict of acquittal. Since then, the defendant has addressed letters to the complainant and his father, and to Dr. Baxter Langley, containing, it was alleged, libellous matter. One effect of these communications had been seriously to affect the health of the complainant's father, whose son had been referred to as a "lying thief," "depraved wretch," &c. The defendant was committed for trial at the next assizes, being admitted to bail in his own recognisances of £200, and two sureties of £100 each.

### An Italian Bequest to Medicine and Science.

THE *Allgemeine Wiener Zeitung* publishes a statement that a larded proprietor, who died here, has bequeathed all his property to the three academies of science of Lon-

don, Vienna, and Paris, and to the Vienna general hospital. The will was executed in the year 1856, when Milan was still under the Austrian dominion. At that time the property of the testator amounted to about 825,000 livres. A codicil to the will ordered this sum to be divided into three equal parts among the three academies already mentioned, on the condition that two prizes be offered yearly for *concours* examinations, and with the further condition that the prizes in Vienna should only be awarded to German Austrians. The codicil also provided that all the increase of the property above this sum should fall to the share of the Vienna general hospital. Now, at the death of the testator, his property is found to be worth 1,800,000 francs, so that the hospital is the chief legatee of the deceased. All movable property, in particular his valuable library, he left to the Vienna Academy of Sciences. It is said that this will will be contested, on account of the mental incapacity of the testator.

### Hydrophobia—a Simple Precaution.

DR. LOCKE JOHNSON suggests that in cases of injury from cat or dog-bite—whether the animal be in a rabid state or otherwise—a roller (garter, piece of cord, handkerchief, &c., will answer the purpose in an emergency) should be at once tightly applied above and below (and also close to) the seat of injury, and should not be removed for some hours subsequent to canterization. When the rollers cannot be effectively employed on account of the position or seat of the injury, compression *all round* the wound should be made by firm pads, pieces of card-board perforated, gutta-percha, or other substances, and the security of such compress maintained by means of a roller drawn tightly over and fastened. Thus the tendency to absorption of the virus will be lessened, and the pain usually produced by canterization—especially if the wound or wounds be extensive—very much decreased.

### Comparative Healthiness of English Watering-places.

FROM the Registrar's returns for the districts or sub-districts containing, and approximately representing, the principal English watering-places, we extract the following results for the 10 years, 1861-70:—In the sub-district of South Bersted, containing Bognor, the annual mortality averaged only 15·3 per 1,000 persons; in Folkestone, 16·4; Prittlewell, containing Southend, 16·6; Eastbourne, 17; Ilfracombe, 17·1, and the same in Worthing; Isle of Wight, 17·2, and the same in Tunbridge Wells; Ramsgate, 18·1, and the same in Penzance; Tenby, 18·2; Harrogate, 18·4, and the same in Wallasey sub-district, containing New Brighton; Ottery St. Mary sub-district, containing Sidmouth, 18·6, and the same in Littlehampton, and also in Deal and Walmer; Banwell sub-district, containing Weston-super-Mare, 18·7, Torquay, 18·8; and the same in Teignmouth and Dawlish; Dover, 19·2, and the same in Lowestoft, and Creuddyn, containing Llandudno; Hastings and St. Leonards, 19·4, and the same in Leamington; Matlock, 19·6, and the same in Exmouth and in Dartmouth; Cheltenham, 19·9; Clifton, including part of Bristol, 20; Lyme Regis, 20·2, and the same in Hanley Castle sub-district, containing Malvern; Weymouth, 20·3;

Herne Bay, 20·5; Beaumaris, 20·7; Buxton, 20·8; Poulton-le-Fylde sub-district, containing, Blackpool and Fleetwood, 21·2; St. Asaph sub-district, containing Rhyl, 21·9; Margate, 22, and the same in Brighton and Hove; Yarmouth, 22·5; Aberystwith, 22·7, and the same in Bangor; North Meols sub-district, containing Southport, 23·1; Bath, 23·3; Scarborough, 23·4; Whitby, 24·2 per 1,000. In order to compare statistics compiled by the same authority during 1874 with those of the ten years given above, the following will give us an approximate estimate:—It was in many places less, often materially less, than in the 10 years 1861-70:—In South Bersted (Bognor) it was only 14·9; in Worthing, only 12·9 per 1,000; Isle of Wight, 16; Tunbridge Wells, 16·4; Ramsgate, 13·6; Tenby, 16·7; Harrogate, 17·9; Ottery St. Mary (Sidmouth), 14·9; Littlehampton, 11·7; Deal and Walmer, 17; Torquay, 11; Lowestoft, 13·8; Dover, 17·7; Leamington, 16·4; Matlock, 18·1; Cheltenham, 15·3; Clifton, 17·9; Hanley Castle (Malvern), 11·5; Herne Bay, 19·8; Beaumaris, 15·3; Buxton, 13; St. Asaph (Rhyl), 19·1; Margate, 21·1; Brighton with Hove, 16·6; Yarmouth, 21·9; Aberystwith, 18·3; Bangor, 18; Bath, 19·1; Scarborough, 15·5; and Whitby, 20·3. These returns show an improvement on those for 1861-70. Other places do not maintain the 10 years' average. In the second quarter of 1874 the annual rate of mortality in Folkestone was 20·5 per 1,000; in Prittlewell (Southend), 21·5; Eastbourne, 17·6; Ilfracombe, 20·5; Penzance, 20·7; Wallasey (New Brighton), 22·2; Banwell (Weston-super-Mare), 19·8; Teignmouth and Dawlish, 22; Creuddyn (Llandudno), 23·4; Hastings and St. Leonards, 19·5; Exmouth, 21·5; Dartmouth, 23·3; Lyme Regis, 31·5; Weymouth, 21·7; Fylde (Blackpool and Fleetwood), 26·1; North Meols (Southport), 24·2 per 1,000. It is worthy of remark that all the nine inland watering-places in the 10 years' list show an improved state of health in 1874; their death-rate in the last quarter ranging from 11·5 to 19·1 per 1,000.

### The Banbridge Waters.

THE waters, nineteen in number, used in the town of Banbridge, have been submitted to analysis by Professor Cameron, of Dublin, who reports unfavourably upon the great majority of them. The solid matters per imperial gallon varied from 1234 grains per gallon to the enormous amount of 120·37 grains. Only one or two of the waters were reported to be of fair quality. The following is the composition of one of the worst:—

Solids per gallon, 120·370 grs. (including albuminoid nitrogen, 0·186 grs.); ammonia, 0·238 grs.; nitrous acid, trace; nitric acid, large amount; sulphate of lime, 25·000 grs.; chlorine, 16·650 grs.

The amount of ammonia and albuminoid nitrogen in this water is at least twenty times greater than is found in pure waters. Nearly all the Banbridge waters are almost as bad as the one above particularised.

### Saw-dust Brandy.

WE have heard of butter made from Thames mud, which extraordinary discovery existed only in the muddled brain of some "knowing-one;" of "high class" port and sherry, whose composition was as much allied to

grape-juice as the moon to green cheese, and which filthy decoction is unfortunately as common in the British market as real grape wine. But what will our readers think of the latest discovery, reported in an American contemporary, *The Clinic*—saw-dust brandy, which a German chemist is said upon good authority to have produced.

We are friends to the temperance movement, says the editor, and want it to succeed; but what chance will it have when a man can take a rip-saw and go out and get drunk with a fence-rail? What is the use of a prohibitory liquor law if a man is able to get the *delirium tremens* by drinking the legs of his kitchen chairs? You may shut an inebriate out of a gin-shop and keep him away from taverns; but if he can become uproarious on boiled saw-dust and desiccated window-sills, any effort at reform must necessarily be a failure. It will be wise, therefore, if temperance societies will butcher the German chemist before he goes any further. His recipe ought not to be made public. He should be stuffed with distilled boards until he perishes with *mania a potu*.

### Small-Pox Inoculation in Ireland.

WE observe that the practice of small-pox inoculation is rife in the county Mayo, and that numerous cases of variola are reported by the medical officers. The parents of children inoculated refuse to reveal the name of the inoculator, and the guardians have accordingly ordered the prosecution of the parents themselves. We hope that we shall have no namby-pamby soft-headedness on the part of the magistrate, but that this most outrageous offence will be stringently dealt with.

THE library of the Obstetrical Society will be closed from the 7th to the 19th of September.

By the will of the late Sir E. Beckett, Leeds Infirmary receives a legacy of £1000, and the Doncaster Infirmary £250.

It is proposed to perpetuate the memory of the late Dr. Bhau Dajee of Bombay by the establishment of an hospital for lepers.

THE Belfast General Hospital has obtained a charter, and will in future bear the title of the Royal Belfast General Hospital.

SCARLET fever is now prevalent in St. George-in-the-East, although the medical officer of health for the district has not reported any deaths.

DR. JOHN DOUGALL will read a paper on the "Science of Disinfection" at the Social Science Congress, which meets at Glasgow in October.

THE trustees of the Cholmondeley charities have made a second grant of £25 in aid of the Royal National Hospital for Consumption at Ventnor.

MR. JAMES LEWIS has been promoted to an inspectorship for the purposes of the Acts relating to the registration of births, deaths, and marriages in England.

DR. ALLEYNE NICHOLSON has been appointed to the Chair of Biology and Physiology in the Durham University College of Medicine and Physical Science, at Newcastle-on-Tyne.

SIR ALEXANDER ARMSTRONG, K.C.B., Director General R.N., made an official inspection of the Royal Naval Hospital at Haulbowline, Queenstown, on Friday, the 4th inst.

THE Registrar-General reports during the week ending last Saturday 5,302 births and 3,380 deaths in twenty-one large cities and towns of the United Kingdom. The average rate of mortality in these towns was twenty-three per thousand.

ON August 18th the foundation of the new Samaritan Hospital, at Belfast, was laid by Dr. Hodges, Professor of Medical Jurisprudence in Queen's College, in the presence of a distinguished company. The foundation of this hospital is due to the liberality of the late Mr. Edward Benn, of that town.

SCARLATINA is still very fatal in Dublin, twenty-two deaths having been registered during the week ending August 22nd, and thirty deaths the preceding week, the highest number this year from the affection. Nine deaths from scarlatina were also registered in Belfast during the past week, and a similar number from small-pox.

THE foundation of a Convalescent Home in connection with the Orphan Working School at Haverstock Hill was laid on August 29th, at Margate. The want of such an auxiliary to the Home has long been felt; as more than one-half the parents of these children had died from consumption, the orphans required special care.

SMALL-POX has been entirely stamped out at Newmarket. It is now nearly a fortnight since the last case, a mild one, was removed; and all the afflicted, both from the town and union, are in the hospital. Active measures have been taken by the Board of Health and Mr. Lamb, sanitary inspector, to purify the infected quarters.

LIEUT. BOYNE, of the 38th Regiment, who a short time ago walked from Aldershot to London in less than seven hours, has just walked from Aldershot to London and back, a distance of seventy miles, within seventeen hours. He started from the officers' mess for London at three p.m. on Wednesday, and arrived at the mess at 7.39 a.m. on Thursday, and appeared to be quite fresh.

A HOME of temporary rest at Harrow for the benefit of trained nurses who are suffering from the effects of overwork is contemplated. It will to a certain extent be self-supporting. A sum of seven shillings a week will be required from each inmate for maintenance; the power of modifying this rate in exceptional circumstances will be reserved. Subscriptions will be received by Miss Catherine Whitehead, Harrow.

THE *Jardin Zoologique* states that a few days previous to the ravages of cholera in Galicia in 1872, all sparrows quitted the town of Przemyśl, and not a bird returned until the end of November, when the disease had disappeared. The same circumstance was remarked in Munich and in Nuremberg. During the attacks of cholera at St. Petersburg and Riga in 1848, in Western Prussia in 1849, and in Hanover in 1850, every swallow and sparrow forsook the towns.

THE corporation of Sheffield, in view of the large proportion of sickness and deaths, caused in the town by the consumption of bad food, has commenced a crusade against suspected tradesmen. On Friday last three of them were summoned by the magistrates. One, a butcher, was fined £80 for exposing for sale eighty pieces of bad meat, some of which were crawling with maggots; a provision dealer was fined £55 for having in his possession eight hams intended for sale and unfit for human food. A fruit dealer, named William Cooper, was also fined £5 and costs for selling rotten pears.

DR. THOMAS BALLARD, late President of the Harveian Society of London, died on September 1st, at his residence, Southwick Place, Hyde Park. He had for some years past been suffering from diabetes, but was able to be present at the late meeting of the British Medical Association, at Norwich. After his return to town, inflammation of the hand, with oedema of the arm commenced, supposed to be occasioned by plugging of veins. Dr. Barclay, Mr. G. D. Pollock, and Mr. Eastes were in attendance, but the suppuration extended, and patient became worse, and gradually sank. He belonged to various medical societies, and will be missed by a large circle of friends and patients.

THE Inspector-General of the French Lunacy Department has published the results he has obtained from a careful study of all the statistical documents he has been able to collect on insanity in France during the years from 1869 to 1872. He has arrived at the conclusion that, although during that trying period for Frenchmen, from 13,000 to 14,000 cases of mental disease were registered, yet the number of patients confined in private lunatic asylums was much below the usual average. A similar fact was observed in 1849, which, taken in connection with the state of things observed by Dr. Lunier, would make it appear that political or social crises, instead of, as is generally imagined, augmenting the number of insane persons, really diminishes it.

THE so-called University of Philadelphia has been again brought under public notice in an inquest held at Nottingham, on the body of a woman named Ellis. A person named John Wilson, calling himself a "doctor of medicine of the University of Philadelphia," had prescribed green hellebore for her, under the idea that she was suffering from erysipelas of the face. As she became worse, Mr. Snell, surgeon, was called in, and found that the patient was suffering from delirium and congestion of the brain, arising from disease of the kidneys. He believed that the patient, if treated properly at first, might have recovered; but he did not think that the hellebore



had actually caused death. The coroner said that he regarded the case as one in which Mr. Wilson had prevented other and better advice from being procured, which might have saved the life of the woman. When Mr. Snell was called in, the woman was dying, but, if his assistance had been obtained sooner, the probability of her recovery would have been greater, and he thought it was to be regretted that Mr. Wilson stepped out of his line of business to give her aid. English laws might be different from American laws, because anyone who was put upon the *Medical Register* in England and was qualified to practise had to pass certain examinations, and the law was strict enough to say that a man could not recover his fees for attendance if he were not on the *Register*. In this instance, Mr. Wilson practised as a regular qualified man when he had not the necessary qualifications. It was to be regretted very much that he attended this case at all, and stepped out of his path as he did. The jury returned a verdict "that deceased died from disease of the kidneys, and the jury regret that proper medical advice was not obtained earlier." The coroner, addressing Mr. Wilson, said that he must be well aware that he had no right to visit the patient and practise as a medical man in England unless he had the proper qualifications.

It was a serious matter, and, if persons died under his attendance, he (the coroner) should feel it his duty to hold an inquest in every case.

### THE FOOD OF PLANTS AND ANIMALS.

PROFESSOR REDFERN read a paper on the "Influence of Food, and the Methods of the supplying it to Plants and Animals," before the Belfast meeting of the British Association, from which we take the following :—

"Plants," he said, "entirely uninfluenced by any but physical conditions, had long since taught farmers, and gardeners especially, that they must not only have abundance of food, but that they must have it in a condition in which they can readily make use of it. In proof of this, he need only refer to the known necessity for the regular use of highly nutritious liquid manure in the cultivation of perfect roses, and to the care the agriculturist had learned to take in the application of the proper kind of artificially prepared manure for each crop, and in its use in a form in which the plant could most easily absorb and apply it. It was many years since, that Mr. Ward gave a beautiful illustration of the influence of food on plants. He found a perfect specimen of the common centaury half an inch high, with one or two pairs of most minute leaves and one flower, on the bare chalk at the border of a wood; on tracing it into the open parts of the wood, it became a glorious plant, four or five feet high, and covered with hundreds of flowers. He (Professor Redfern) wished to show that it was not only important to supply plants with food, but to do this so that they could easily appropriate it, otherwise the supply would be lost and wasted. He had brought with him a series of specimens of common rape, which would speak for themselves. The largest specimen measured five feet six inches high; they branched freely from the ground upwards at intervals of a few inches; their large leaves, thick and fleshy, measured fourteen inches by six inches, and their flowers once covered the plants with their brilliant yellow colour. The middle-sized specimens measured five feet two inches high, but for three feet from the ground they had no branch at all; their leaves were very small, and the plants were little more than a fibrous stem with a few flowers at the top.

The smallest specimens were only three feet high, having a few leaves not an inch long by three-sixteenths of an inch broad, and a few flowers at the top entirely useless for any purpose whatever. Other specimens of an essentially similar kind were grown on another spot of ground under circumstances essentially similar. Of those specimens a large number only measured fifteen inches high; they were furnished with a few almost linear leaflets and a few flowers at the top. Yet the larger specimens grown on this ground were five or six feet high, covered with large spreading branches, furnished with abundance of leaves, yielding a very large amount of good fodder compared with the amount of surface covered by them. With regard to the roots, those of all the poorer plants were straight, small, and but little branched; while those of the well-developed plants were thick, branched, and extended on one side only. For from four to six feet distant from the edge of the plot of rape, on each side the ground, had been trenched two spades deep for planting with trees and shrubs, and a quantity of bog earth with sand and manure had been mixed with it, the manure having been put at the bottom of the trench, and the mixed bog earth and sand half way down. The only well-developed plant grew near the edge of this trenched ground, and their one-sided root spread into it for two feet, exactly in the position occupied by the mixed bog earth and sand. There were only occasional smaller plants at this part, and the roots of every one of these were straight, short, and but little branched. They, in short, had not discovered that there was soft and spongy ground within so short a distance—ground in which their roots might have revelled in growth like those of their neighbour giants, if they had been equally fortunate in finding their way thither. None of the thick long roots on the trenched side of the plants penetrated deeply into the trenched ground. It was the loose and spongy condition of the soil that had attracted them, and not the manure, for not one root had attempted to penetrate to the depth of the manure; all had been content with the position of the mixed bog and earth and sand, thus affording an absolute demonstration of the necessity of attending to the mechanical condition of the soil as well as to its containing a sufficiency of the materials which plants needed for food. His plants of rape had abundant nourishment in their immediate vicinity, but they could not avail themselves of it, the soft spogioles of their roots being unable to penetrate the tough clay which a great amount of labour had failed to render porous enough for roots of any kind to enter to any considerable extent.

"Such was exactly the condition in which many persons were who had never applied their intelligence to the selection of their food or to the methods of taking it. There were few social problems more important than how to acquaint the wife of the labourer and artisan, or even the wives and servants of the middle classes, how to spend a fair share of their income upon food to the greatest advantage, and how to prepare it without destroying its nutritive properties. A savoury dish of meat was often prepared by mincing or cutting the meat into small and more or less cubical blocks. It was then stewed, or more frequently boiled; the outer surface of each little block had its albumen firmly coagulated, and the whole was converted into about as indigestible a mass as could well be imagined, the high priced and highly nutritious meat having been destroyed for the purposes of nutrition, and the action of the digestive organs probably injured for some time to come. Or good and valuable flesh meat was subjected to the process of salting, which, first of all abstracted the juices of meat, and then hardened the fibres, so as to destroy or greatly deteriorate its digestibility. No doubt it was convenient to have a hardened dry mass of meat incapable of much change for months, and ready to be used for the purpose of filling the stomach and effectually satisfying the appetite; but these were not the purposes for which food was intended to be used. It ought to be capable of

supplying the waste of the body, and of being easily converted into heat and motion. If it failed in these particulars, it would also fail in nourishing the brain, and aiding in the evolution of intelligence, and thus intellectual and bodily power was lost to the community, and deterioration of race was promoted. His colleague Dr. Gordon said that he recollected running races, putting stones, wrestling, and other athletic exercises being the favourite amusements of the sons and servants of the farmers in the county Down. Now nothing of the sort was heard of. These young men found a short day's work almost too much for them, and at the end of it they were to be seen lying about indulging in idle conversation. Coincidentally with this, they imagined themselves the equals of their masters and mistresses, and that the healthful oatmeal porridge and buttermilk twice daily, with beans and bacon for dinner, was too strong and coarse; they insisted on a more delicate fare, and demanded a supply of tea and white bread. They were unconscious that persons in their position but a few years ago possessed amazing vigour, and performed twice the amount of labour with greater ease, and when the day's work was over actually revelled in the display of surplus strength, which nothing but their better and more rational diet could have yielded them."

#### REMARKS BY THE COUNCIL OF THE ROYAL COLLEGE OF SURGEONS IN IRELAND

ON

THE REPORT OF THE VISITORS APPOINTED BY THE  
GENERAL MEDICAL COUNCIL TO VISIT THEIR  
EXAMINATIONS,

*Held January 13th, 1874, and following days.*

THIS Council, having carefully studied the Report submitted for their consideration and remarks, whilst they observe, with pleasure, that the visitors consider that the final examination "combines, in a very appropriate and advantageous manner, a written, an oral, a clinical, and a practical examination," cannot but regret that the visitors, in the exercise of their discretion, considered it desirable and necessary to dwell so minutely and at such length on certain defects in the examination which they knew and acknowledged that the Council of this College had already taken active measures to remove.

With reference to the statement found in the commencement of the Report, p. 128, "We found, however, to our regret, that an important part of the examination, that, namely, in dissection, had taken place on the previous day," this Council would wish to remark that, in order to carry out the improvements in the conduct of the examinations at present in process of being adopted at the College, they found it necessary to require the dissections to commence on a day earlier than that which they had some time before informed the General Medical Council would be the day for commencing the examinations, and through inadvertence it was omitted to notify the General Medical Council of the fact, which, however, would have been done had any intimation been previously conveyed to them of the intention to have visitors present at the examinations in question.

With respect to the defects in the system of marking, to which allusion is made in the visitors' report, these had been recognised by this Council at a time considerably anterior to the date of the last visitations of the examinations of this College, and a recommendation adopted for its modification, whereby will be rendered impossible the improbable contingency of one examiner swamping the votes of his colleagues.

With regard to the suggestions made by the visitors, some of them, as endorsing their own views, this Council were glad to get, and either have adopted or are willing to adopt; amongst these may be mentioned those in reference to chemistry, forensic medicine, and histology. Always jealously alive to the necessity of modifying their examinations in accordance with the progress of medical science, this Council

have from time to time made such alterations as they deemed requisite; and some time ago appointed a committee to report, what changes and improvements were required in the form and style of their examinations. After most mature deliberation, extending over many months, a report was submitted to, and adopted by, this Council (a copy of which is herewith forwarded), which embodies, without exception, every suggestion in their opinion of any value contained in the report of the visitors of their examinations.

In this report it has been arranged to extend considerably the time for the writing of papers, and to include in that part of the examination questions on histology, which cannot satisfactorily be dealt with, as suggested by the visitors, at the oral examination; and whilst this Council are of opinion that botany should not enter into the subjects of examination for a surgical licence, they recognised its importance by retaining it in their curriculum. Provision also has been made for testing candidates in chemistry and medical jurisprudence the latter subject having been deferred to the second part of the examination, where, in their opinion, owing to its comprehensive nature, it should be placed.

In the reports both on the junior and senior class examinations this Council observe that the visitors take exception to the "short time that is allowed both to the written and oral parts of the examination." In their new scheme it is enacted that, for the first and second examinations, "four hours shall be allowed" for the written examination, and that for the *third* "one hour's examination at least" shall be given. This Council regret that this modification was not even alluded to by the visitors.

Other of the recommendations of the visitors this Council cannot adopt. Amongst these is their suggestion that, in the examination on operative surgery only one student should operate at a time. This, considering the very large number of candidates that at times present themselves, this Council consider would be impracticable, and they cannot see that any serious inconvenience to either the candidate or examiners can arise from there being more than one candidate operating on the same subject. In commenting upon this portion of their examinations, the visitors also call attention to the advisability of the examiners "submitting their questions to each other, or to the chairman, prior to the examination," absolutely quoting a by-law of this College to this effect, and seemingly implying that the by-law in question is ignored by the examiners. Now anyone conversant with examinations on operative surgery conducted on a large scale should be aware that such examinations could not be carried out at all were not such conferences held—held not so much for the purpose of securing "variety in the operations" as to ensure the practicability of thus examining a large class of candidates with but a limited supply of subjects. As a matter of fact, such conferences are always held, and however they escaped the visitors' notice, were held at the examination in question.

The visitors also seem to imply that the testing in operations is insufficient, drawing attention to the *apparent* similarity in the operations the candidates were called upon to perform. This Council reply that in their opinion it is unimportant the nature of the capital operation which the candidate may be called upon to perform so long as he is not informed of it beforehand; the great object in view being to ensure that all the candidates shall previously take out a course of operative surgery. The visitors also dwell upon the shortness of the time devoted to this portion of the examination. Upon this subject this Council would remark that, if four hospital surgeons of large operative experience are not competent to decide upon the merits of *five* candidates so far as operative surgery is concerned in the time admitted by the visitors to have been devoted to their examination (thirty-five minutes, a candidate being told off to each examiner), then, indeed, must they admit that their examiners are unequal to the task allotted them.

In connection with this subject this Council cannot avoid remarking, with regret, that the members of the General Medical Council failed to support the resolution brought forward by the representative of this College at the recent meeting of the General Medical Council (Minutes, p. 77), viz.:—"That, in the opinion of this Council, all examinations on anatomy should, so far as practicable, include the performance by each candidate of actual dissections; and that all those on surgery should include the performance by each candidate of two or more operations on the dead subject." This resolution, embodying as it does the collective opinions

of this Council, composed for the most part of hospital surgeons, all of them for several years engaged in the practice and teaching of surgery, should have commanded the support of the General Medical Council.

A comment similar to that made with reference to the examinations on Operative Surgery has been hazarded by the visitors respecting the clinical examination, viz.:—"The examination in clinical surgery was strictly limited to the ætiology and diagnosis of the cases exhibited. No questions were asked as to the various methods of treatment that might be adopted, nor as to the result that might be anticipated, though all the cases seemed to us to afford a fair opening for such inquiries." On this the Council of the Royal College of Surgeons in Ireland have to remark that the clinical examination requires much delicacy and tact. The patients on whom they are conducted are, for the most part, under the treatment of other practitioners, and have heard the clinical remarks made by them on the nature and treatment of their ailments. They must now listen to the observations of the candidates and examiners, and it can be readily understood how a conflict of such opinions might lead to an hospital being closed altogether against clinical examinations. This Council are, therefore, distinctly of opinion that the object of clinical examination should be diagnosis, pure and simple, and that treatment, which can only be elicited by question and answer, should be relegated to the oral examination.

With the opinion expressed by the visitors, "that the quarter-hour system of examination at successive tables is not well adapted for testing adequately the requirements of candidates," this Council must join issue, as, after long experience, they are convinced that examiners who cannot in this way determine, in conjunction with a written, clinical, and practical examination, whether a candidate possesses the requisite amount of knowledge, are incompetent to discharge the duties which they have undertaken. With reference to this portion of the examination, a remarkable misstatement is to be found in the Report, p. 131—"We are of opinion that two written questions on anatomy and one on physiology do not afford a sufficiently searching test of a candidate's knowledge of these important subjects, even when supplemented by an oral examination of *thirty minutes by two examiners*." The fact being that the oral examination is conducted on these subjects by *three* examiners, two on anatomy, for fifteen minutes each, and one on physiology, for fifteen minutes, in all forty-five, instead of thirty minutes. What renders this misstatement remarkable is, that the visitors state the facts correctly in another part of their Report (p. 129).

The doubt expressed in these words, to be found in the last paragraph of the first Report (p. 133), "The examinations, if the dissection be fairly carried out," this Council would remark is unworthy of the visitors, and by no means to be excused when contrasted with the following statement made by the same visitors in an earlier part of their Report (p. 128): "We were informed that every student had been required to dissect for about half an hour, and on examining the subject we found that the vessels, nerves, and muscles of the axillary space on both sides, as well as those of the right side of the neck, *had been fairly* made out, and that the skin and superficial fascia of the inguinal region and upper part of both thighs had been reflected;" an amount of dissection, in the opinion of this Council, quite sufficient to test the knowledge, in practical anatomy, of the very small number of candidates examined on that occasion—eight, of whom seven were rejected. Did any suspicion lurk in the minds of the visitors that the dissections had not been *fairly* carried out? Had they any grounds for entertaining such a supposition, they should have boldly given expression to it in unequivocal terms. If, on the contrary, they entertained no such suspicion, then never should this sentence have found place in their Report.

With reference to the following remarks of the visitors, in the first paragraph, p. 142:—"The examination in the practice of medicine by two examiners was on erysipelas, permanent patency of the aortic valves, and hypertrophy of the heart, pleurisy, and pneumonia. A few questions were asked on treatment, but it was not possible, within the time allowed to each examiner, to give a full or satisfactory examination on any of the diseases." From the language in which the visitors have couched this sentence, it might be inferred that every candidate had been examined within the fifteen minutes allotted to the *visd voce* examination on practice of medicine, upon all of these diseases—a style of examination

which would, indeed, be of a superficial character. Such, however, was not the fact, some of the candidates having been examined on one, some on another, of the diseases enumerated.

With reference to the selection of the visitors employed to report on the system of examination pursued at their College, this Council would remark that, to report upon the examinations conducted for surgical licences, it is their opinion that operating surgeons and practical anatomists are the proper persons to whom the discharge of such duties should be confided. Visitors, no matter how otherwise eminent they may be, unless they also fulfil these conditions, cannot be supposed to be familiar with the requirements to be expected from candidates for surgical licences, nor can their reports be expected to have much weight attached to them by persons whose life-long work has been the discharge of surgical duties. And this Council cannot avoid remarking how much it is to be deplored that, in making their selections of visitors outside the members of the Council, the executive committee did not act in accordance with the view expressed in the fourth paragraph of the Report of the committee on visitation of examinations (p. 62, vol. x., Minutes of Medical Council), viz.:—"That each examination reported on shall be visited by a due proportion of members of the branch councils *other than the one in that division of the kingdom where the examination is conducted*,"—all the outside visitors in the past year having been selected from but one of the divisions of the kingdom.

In concluding their remarks, this Council would wish to observe that it is much to be regretted that the course pursued by the majority of the members of the General Medical Council, when the consideration of the report of the visitors of the examinations at the Royal College of Surgeons in Ireland came under discussion, was so completely at variance with that pursued in the case of the other bodies reported upon. This Council feel that such a line of conduct was as unjust as it was uncalled for; especially uncalled for when the members had been informed by their visitors that the Council of this College were busily engaged in remodelling the mode of conducting their examinations, and in remedying any defects which might be supposed to exist in them. They have failed to find in the Report, especially when they compare it with the reports of the visitation of the other bodies submitted to the consideration of the General Medical Council, any justification for a resolution, the tone of which is so calculated to engender feelings of irritation, and to disturb the harmony which should exist between the General Medical Council and the medical authorities. Having planned long before the visitation every modification worthy of consideration suggested by the visitors, they are putting these modifications into actual and immediate operation, even without receiving a guarantee (to which, however, in justice to their corporation they feel themselves to be entitled) that a similar examination will be required from any other of the medical authorities claiming the registration of their licence. And this, too, notwithstanding their knowledge of the fact, of which they have had repeated painful experience (a fact of which the members of the General Medical Council also, after their late meeting, can no longer plead ignorance), that candidates rejected by one of the licensing bodies can secure, without loss of time or further preparation, through another portal, insertion of their names on the General Medical Register.

## Literature.

### DISEASES OF THE SKIN. (a)

THE greater part of the present volume has been written by Dr. Kaposi, Professor Hebra's assistant, who has also aided Mr. Warren Tay, the able translator, in revising the work. The extensive experience of Mr. Tay in the Blackfriars Hospital has moreover enabled him to make the treatise most useful for English readers. Three of the ten classes of cutaneous maladies are discussed in the volume—namely, hypertrophies, atrophies, and benign growths, so that the chapters on lupus, leprosy, and carcinoma are all that are wanted to complete the treatise. Under the head of keratoses are included corns, warts, condylomata,

(a) "Diseases of the Skin," Prof. Hebra. Vol. III. The New Sydenham Society. 1874.

ichthyosis, and some minor affections, and the following description of the anatomical structure of the second variety is as follows: "Whatever may be the size and form of a wart or of a pointed condyloma, it always consists of a connective tissue framework, which determines the form of the excrescence, in whose interior a vascular loop is found, and whose exterior is covered with a more or less thick epidermic layer.

The earlier observers were of opinion that such an outgrowth of warty and condylomatous formations could only occur from an existing papillary layer, that is, from the papillæ themselves. But the circumstance that similar formations appear on such parts of the skin where no papillæ exist, and also on mucous membranes as well as on other tissues, shows that a pre-existing papilla is not necessary to their production.

For warts which project, excision with curved scissors is advised, and for those which are more sessile, fluid caustics, such as sulphuric acid. In such latter case the surrounding skin can be protected by pressing over the wart a small lump, of softened wax, and then scratching away the portion over the wart, a receptacle is thus easily made for the caustic fluid, and the surrounding skin is protected.

The chapter upon ichthyosis, as is usual in all Hebra's writings, is most copious in respect of history, classification, and anatomy, and most scanty as regards treatment. The case of the famous Irishman, Edward Lambert, who, as well as several of his family, were exhibited all over Europe, is detailed in support of the theory that the disease is hereditary. Further, our author says: "It is easily explained why ichthyosis should be hereditary, especially in families where it has been handed down from parents to children in unbroken succession. We need only recall to mind that the children of the Ethiopians, of the Indians, and of the other races of men resemble their respective parents in so far that they as a rule have a similar colour of the skin, if not immediately after birth, at any rate, at an early period of life."

That ichthyosis may develop without any hereditary characters, and in middle age, was, however, proven by a case published by Dr. Mapother in the *Dublin Medical Journal* for June, 1873.

The chapters on diseases of the hair will amply repay perusal, and now-a-days our profession should possess and utilise information on this subject, for owing to the labours of the hair-dresser and hair-dyer, this class of affection must rapidly and largely increase.

In the chapters on keloid and angiomas, Dr. Kaposi gives a very full and accurate account of their anatomical characters. With regard to the latter, all surgeons are familiar with such tumours, composed of erectile and dilated blood-vessels, but that a like morbid condition may come upon lymphatic vessels appears from the following case, which we very briefly summarise from our author, who regards it as unique:—

Patient unmarried female, æt. 32, quite healthy otherwise. Embedded in the cutis all over the body there were hundreds of brownish tumours, the size of lentils, projecting superficially, and to an equal degree into the areolar tissue under the skin. They had existed from childhood, but had latterly increased. One tumour was excised, and upon microscopic examination was found to consist of intercommunicating lymphatics, the blood-vessels being of normal size.

In conclusion, we may assure our readers that the third volume contains descriptions of cutaneous maladies quite as erudite and as accurate as those in the two preceding, although they do not possess such practical import, owing to the infrequency of the affections.

#### LECTURES ON AURAL CATARRH. (a)

DR. PETER ALLEN had nearly completed a second edition of his meritorious "Lectures on Aural Catarrh"

(a) "Lectures on Aural Catarrh: or, the Commonest Forms of Deafness and their Cure." By Peter Allen, M.D., &c. Second edition. Churchill, 1874

when he fell a victim to an attack of enteric fever, which he took immediately on his return home from his vacation holiday. His loss will be long and severely felt, since his place in society and in that special department of medicine in which he practised and had attained to a high reputation will not be so easily filled. His kindness of heart and his genial friendship lives in the memory of those who had the pleasure of his acquaintance.

These Lectures, already favourably known to the profession, contain the essence of the work of the thinker, the student, and the successful practitioner, and we doubt not will be long consulted by the profession. The illustrations of the anatomy of the internal ear are most carefully executed, and upwards of one hundred pages of new matter have been added. The information throughout is quite up to the mark, and is of an eminently practical and useful character.

#### THOMSON'S CONSPECTUS. (a)

A NEW edition of "Thomson's Conspectus" has just appeared. We welcome our old pocket companion of the *Pharmacopœia*, carefully revised, as it apparently is, and brought up to the present time by the addition of a supplement and an appendix, with notices of new medicines and preparations contained in the additions of the British *Pharmacopœia* (May, 1874), and useful remedies employed on the Continent and in America.

Although the editor, Dr. Birkett, dedicates his little book to the junior members of the profession, doubtless the senior members will find it equally serviceable, since it is perfectly certain that "the pictures drawn in our minds are laid in fading colours, and, if not sometimes refreshed, vanish and disappear." Indeed, as we grow older, our multifarious and extended pursuits, together with the anxieties of life, tend to obliterate the botanical, chemical, and therapeutical properties of the larger portion of the substances contained in the *Pharmacopœia*, and hence the necessity for this handy little book of reference, which can be conveniently carried about in the pocket.

#### ON THE ADMINISTRATION OF PHOSPHORUS. (b)

DR. EDMUND KIRBY, to whom the general practitioner is very largely indebted for a ready method of dispensing, has published a valuable and timely little brochure, "On the Administration of Phosphorus." Although phosphorus has long been known as a powerful remedial agent, it has apparently not been employed to any extent in this country, and therefore we are inclined to think, with Dr. Kirby, its neglect has arisen from the absence of official formulæ rather than from a want of clinical experience of its value. This would seem to receive confirmation from the fact that Dr. Pereira, in his "Materia Medica," years ago wrote of phosphorus. "After its absorption it acts as a stimulant to the nervous, vascular, and secreting organs. It excites the mental faculties and the sexual feelings, raises the temperature of the skin, increases the frequency of the pulse, promotes the secretions, and operates as a powerful sudorific and diuretic. It is administered as a stimulant to the nervous centres in convulsive and old paralytic states," &c.

Notwithstanding what was written and known of phosphorus in this country and its employment in America and on the Continent, it was not until May of the present year, when an extravagantly costly supplement of the British *Pharmacopœia* made its appearance, that any attempt was made to furnish the profession with a stable formula for its administration. Dr. Kirby long before this undertook to supply the omission, and now gives, besides a simple pill, a number of useful combinations of phosphorus with iron,

(a) "Thomson's Conspectus, adapted to the British Pharmacopœia." Edited by E. Lloyd Birkett, M.D. Cantab. Longman, Green, and Co. (b) "On the Administration of Phosphorus." By E. A. Kirby, M.D., M.R.C.S., &c. Lewis, Gower Street, London.



quinine, nux vomica, &c., &c., that he and other practitioners have found useful in cases of exhausted nervous power, functional paralysis, nervous headache, neuralgia, hysteria, melancholia, as well as in furuncular inflammations, carbuncle, and certain skin affections. This concisely written pamphlet will do much towards restoring a valuable therapeutic agent to a proper position in the British Pharmacopœia.

## Correspondence.

### THE RELATIONS OF THE PROFESSION TOWARDS HOMŒOPATHY.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—Having but lately returned to town, your comments on my address before the British Homœopathic Congress were not seen by me until to-day, and I would ask your kind permission to say a few words in my own defence.

You characterise as a "gross misrepresentation" my statement that a majority of the profession treat as "unworthy to be regarded as members of an honourable profession, as immoral individuals with whom it would be ignominy to associate," some of their colleagues for acting on their conviction that most diseases are best treated by medicines that act similarly to the morbid cause—in other words, homœopathically. You say: "The medical profession does not refuse to associate with homœopaths for any such reason; but, on the contrary, regards with the most perfect toleration the theory and practice of *similia similibus*." You further state that it is the infinitesimal dose that is "the reason for the exclusion of homœopaths by the profession."

Now, it is a very serious thing to be accused of "gross misrepresentation," and I do not suppose I shall appeal in vain to your sense of justice to allow me to lay before your readers some of the evidence on which I founded the statement you thus characterise. I could, I am sure, adduce a large amount of testimony from the medical periodicals in proof of my allegation; but, with all deference to you, I believe the resolutions of public bodies like colleges and societies express the sentiments of the medical profession better than "utterances of professional journals," for I have not been editor of a professional journal for thirty years without knowing that the editorial plural "we" often masks the singular "I."

On the 9th of May, 1851, the Royal College of Physicians of Edinburgh passed resolutions against homœopathy in which, after referring approvingly to it having, in 1842, "peremptorily declined to admit into its body a candidate for its Fellowship because he practised homœopathically," it goes on to say that "those of its Fellows who have become homœopaths, or any other medical practitioners who follow homœopathy, must necessarily be alien to the other Fellows and to the profession at large, inasmuch as no Fellow of the College, nor any other physician can, by any possibility, without derogating from his own honour and from the honour of the profession, meet practitioners of homœopathy in consultation, or co-operate with them in the other common duties of professional life."

On the 14th of August, 1851, the Provincial Medical and Surgical Association (now the British Medical Association) passed resolutions against homœopathy in which we find the following phrases: "That it is derogatory to the honour of members of this Association to hold any kind of intercourse with homœopathic practitioners." "That there are three classes of practitioners who ought not to be members of this Association, namely: 1st. Real homœopathic practitioners; 2nd. Those who practice homœopathy in combination with other systems of treatment; 3rd. Those who, under various pretences, meet in consultation or hold professional intercourse with those who practise homœopathy." "That the thanks of the Association are eminently due, and are hereby given to the Presidents and Fellows of the Royal College of Physicians and Surgeons of Edinburgh for their determined stand against homœopathic delusions and impostures." "That the thanks of the Association are also due, and are hereby given to the Universities of Edinburgh and St. Andrew's for their resolution to refuse diplomas to practitioners of homœopathy."

In 1851, Dr. R. D. Hale passed his examinations, and obtained his degree at St. Andrew's. The Faculty of that University, learning that Dr. Hale was a homœopathic practitioner, demanded back his diploma.

In 1851, Dr. J. S. Clarke took his degree at King's College, Aberdeen. Soon afterwards some one wrote to the *Lancet* that Dr. Clarke was a homœopathic practitioner. Dr. Type, the Professor of Medicine of the College, wrote to the *Lancet*: "I beg to inform you that, at the time of his examination, not the slightest suspicion was entertained of his being a homœopathic practitioner, otherwise the degree would not have been conferred on him."

In 1858, Mr. Harvey desired to obtain the degree of M.D. at Marischal College, Aberdeen. He passed the two first examinations satisfactorily; but a report of his homœopathic proclivities having reached the examiners, Dr. Macrobin, in the name of the Faculty, questioned him as to his having practised homœopathically. Mr. Harvey objected to reply to such an inquisitorial question, and Dr. Macrobin refused to admit him to the final trial until he should be satisfied that the candidate had never practised homœopathically. In a correspondence that ensued, Dr. Macrobin required from Mr. Harvey "a distinct declaration that, as a man of honour, you have not practised and do not entertain any intention of practising the profession on other principles than those taught and sanctioned in this and other legally recognised schools of medicine; that homœopathy or any other species of irregular unauthorised practice is what you entirely repudiate."

On the 28th of January, 1859, the Liverpool Medical Institution, by a large majority, altered one of their rules to this effect: "But no one practising homœopathy shall be eligible as a member of the institution or as a subscriber to the library, and any member or subscriber who may become a practitioner of homœopathy shall cease to belong to this institution."

On the 10th of August, 1861, the Royal College of Surgeons of Ireland adopted the following ordinance: "No Fellow or Licentiate of this College shall pretend or profess to cure diseases by the deception called homœopathy." "It is also hereby ordained that no Fellow or Licentiate of this College shall consult with, meet, advise, direct, or assist any person engaged in such deception or practices, or in any system of practice considered derogatory by the physicians or surgeons."

I need scarcely say that all these resolutions, as they appeared in turn, were vehemently applauded by every organ of orthodox medical opinion, and that not one feeble protest appeared in the professional journals against even the most extravagant of them.

I might give a long list of societies, medical, medico-ethical, and registration, which have passed laws excluding homœopaths from membership, and even imposing the penalty of expulsion on those of their own members who should meet homœopathic practitioners professionally; but the above will suffice.

The same system has been carried on by the orthodox majority of the profession on the Continent and in America. So late as 1871 the Massachusetts Medical Society attempted to expel its homœopathic members by resolving that any one who "adopts as his principle in the treatment of disease any exclusive theory or dogma shall be deemed to have violated the by-laws of the society by conduct unbecoming and unworthy an honourable physician and member of this society."

I may conclude this list of my proofs with one from the other side of the Channel. On the 4th of January, 1856, under the presidency of Professor Cruveilhier, the Anatomical Society of Paris expelled by an unanimous vote "Drs. J. P. Pessier, Gabalda, Fredault, and Jousset, as authors of homœopathic publications, and M. W—, on account of an infamous and felonious act already punished by the law."

If, Sir, I have been guilty of "gross misrepresentation" in alleging that the majority of the profession have treated us as unworthy to be regarded as members of an honourable profession, as immoral individuals with whom it would be ignominy to associate, on account of our endeavour to act up to our conviction that diseases are best treated homœopathically, you will surely allow that I had some grounds for the statement; and if it be the case, as you assert, that "the medical profession regards with the most perfect toleration the theory and practice of *similia similibus*," then you will admit that the language of the resolutions, &c., I have quoted above must have been used *à la Talleyrand*, to conceal thought, for to an ordinary understanding, and in its literal sense, it seems to have quite an opposite meaning. However, we are glad to

have your high authority that the medical profession regards the theory and practice of homœopathy with the most perfect toleration, only we cannot help feeling as puzzled by those demonstrations of toleration as was the poor fellow in the poem who exclaimed

"Perhaps you were right to dissemble your love;  
But why did you kick me down stairs?"

Your obedient servant,

R. E. DUDGEON, M.D.,  
President of the British Homœopathic Congress of 1874.

53 Montagu Square, London,  
29th August, 1874.

[Our correspondent very conclusively proves that which required no proof—*i.e.*, that the medical profession adopts a relation towards homœopaths which implies that they are unworthy to be regarded as members of an honourable profession. We have been perfectly well aware of the existence of the *pronunciamentos* which he quotes, and yet we reiterate our statement that "the medical profession regards with the most perfect toleration the theory and practice of *similia similibus*," but that it is nevertheless a gross misrepresentation to state that homœopaths are ostracised for holding this dogma or practising upon its principle. The medical profession recognises the perfect right of any practitioner to hold any view, however ridiculous and unscientific, and to apply such theory in his practice so long as he does so with honest confidence in its efficiency. The medical profession, therefore, does not put hydropaths in the same category as homœopaths, although the great majority of its members believe the universal practice of water-doctoring to be a delusion and a snare. Homœopaths are not admitted to association with the profession, and have been made the subject of the denunciatory resolutions quoted by our correspondent because it is impossible for intelligent minds to place any charitable construction upon the practice of infinitesimalism, or, in fact, to believe that it is anything but a fraud. Homœopaths may, if they like, be visionaries; but they must establish their claim to be considered to act with honest intention before they can be met as fellows by scientific medical men. It is a matter of some importance to the profession that its members should not, without contradiction, be accused of persecuting any person because he does not agree with them in their own views; and it is necessary, in justice to medical men, to assure the public that homœopaths are not entitled to any sympathy as martyrs at the shrine of science, but are excluded from the pale of the profession because they are guilty of what medical men consider to be a public fraud.—ED. M. P. & C.]

### SUCCESSFUL CANDIDATES FOR THE INDIAN MEDICAL SERVICE.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

THE Military Secretary, India Office, presents his compliments to the Editor of the MEDICAL PRESS, and begs to enclose for publication a list of the candidates for Her Majesty's Indian Medical Service who were successful at the competitive examination held at Burlington House on the 10th August, 1874. Twenty-eight candidates competed for fourteen appointments. All were reported qualified.

No. of Marks.		No. of Marks.	
R. N. Stocker ...	2,340	C. J. McCartie ...	1,898
G. Bomford ...	2,190	J. C. Lucas ...	1,885
A. Barclay ...	2,156	A. F. Adams ...	1,840
W. O'Hara ...	2,155	M. Sweetnam ...	1,800
E. Tootell ...	2,065	J. P. Oliver ...	1,795
H. A. C. Gray ...	1,935	J. Hume ...	1,755
J. L. O'Keefe ...	1,910	D. N. Parakh ...	1,720

Military Department, India Office,  
21st August, 1874.

## Gleanings.

### Infant Diet.

By A. JACOBI, M.D., Clinical Professor of Diseases of Children, College of Physicians and Surgeons, New York.

*Of the Nursing Infant.*—"But a much more frequent occurrence (than the increase in the normal percentage of salts) is too large a percentage of casein in mothers' milk. Casein will be curdled in hard masses, or will pass into the intestines in the same condition, and be evacuated almost unchanged, or covered, perhaps, with a bile, a little viscid mucus, sometimes even with a streak of blood. The indications are either preventive or curative. The increase of casein is frequently accompanied by a diminution of sugar, and the absolute neutrality may be replaced by a faint acidity; and the effect is constipation. I remove it (the constipation) in many instances, by simply adding a moderate amount of sugar to the normal food. One or two scruples of loaf sugar are dissolved in one or two teaspoonfuls or more of tepid water, and given to the baby just before nursing. The next indication is to prevent the too sudden effect of the gastric juice upon the surplus casein, and keep it from coagulating in hard masses. Instead of the sugar-water mentioned above, I give the baby each time before it is put to the breast a tablespoonful or more, according to age, of strained and well-sweetened oatmeal, for reasons, and prepared in a manner I shall designate hereafter. For this plan, also, which has been serviceable in many cases where the former simple one would not suffice. I claim good theoretical reasons, and the result of various, and, I believe, unbiased observation of a long number of years. The third indication is curative, and refers to the correction of the excess of acid of any origin that may exist in the digestive organs. The main concomitant symptoms of acidity are either constipation or diarrhoea, the principal alkalis in question, preparations of potassa, soda, lime, or magnesia. Wherever neutralisation is required in a case of constipation, we should resort to magnesia, soda, or potassa; whenever we have to deal with a diarrhoea, carbonate of magnesia would be indicated. Whenever no decided indication was to be followed, we might select either of soda or potassa, the bicarbonate or the carbonate: the latter, however, when given in large doses, is too ponderous and less digestible than the former."

"Artificial feeding cannot be successful without milk. Where the choice is given, therefore, cow's milk ought to be preferred. There is in cow's milk less sugar, less of free alkali, less butter, but more and more coagulable casein. Practically, when a relative deficiency of sugar in cow's milk is to be supplied, loaf sugar always answers the purpose. It is advisable to add an alkaline salt (the carbonate or bicarbonate of potassa or soda) to the cow's milk, and best at once when the milk is put aside for the infant's use. Thus I add one or two grains of either of the salts to every meal of the new-born, besides a small quantity of the common salt—chloride of sodium—and a larger dose in proportion to age. Cow's milk ought to be cooked at once, in order to keep it as long as possible from turning sour, and ought to be preserved in a cool place, if not in an ice-box. Next in order is the question how to prevent the great coagulability of the casein of cow's milk; I add instead of water a substance which, by its physical consistency and coersion, is apt to hold milk in suspension. Thus I mix, say, quite thin and transparent mucilage with (boiled and skimmed) milk, and add the desirable quantity of sugar and salt, or soda. Looking for a substance which, while fulfilling that object, is absolutely indifferent from a chemical and physiological point of view, it is gum arabic. An indifferent substance of this sort may be all that is desired for very young infants; the selection of articles of food, which are, at the same time, of a mucilaginous consistency, and nutrient, is perhaps not so difficult as it appears to be. Barley and oatmeal are the two substances I most employ. A teaspoonful of either is boiled in from three to six ounces of water with some salt [a pinch] for twelve to fifteen minutes; the decoction is to be quite thin for very young infants, thicker for later months, and then strained through a linen cloth. Infants of four to six months are to have equal parts of this decoction, which ought to be made fresh for every meal; and (boiled and skimmed) cow's milk and sugar is to be added. The desire of parents to procure the milk of one special cow for their infants I believe to be based upon a mistake. I have always advised the plan of giving the average milk of a farm, and have never been sorry for the results, in all parts of the city."



## Medical News.

**King's College.**—The governors of King's College are enlarging the accommodation of the present building. A new wing, one storey high, in a similar style of architecture with Somerset House, and fronting the Thames Embankment, is being rapidly pushed forward. The dissecting-room and laboratory are being considerably enlarged, and new consulting-rooms and offices erected. The students' rooms are undergoing alteration and improvement, and a new and commodious drawing school is in course of construction. It is expected that the whole will be completed in time for the winter session.

**Bequests to Medical Charities.**—Mr. Walter Tucker, of Weston-super-Mare, has bequeathed £500 each to the Bath Mineral Water Hospital, the Bath Royal United Hospital, the Bath Eastern Dispensary, the Southern Dispensary, Widcomb, the Bath Eye and Ear Infirmary, the Weston-super-Mare Hospital and Dispensary, and the Royal Hospital for Incurables, Putney.

### NOTICES TO CORRESPONDENTS.

**✎** CORRESPONDENTS requiring a reply in this column are particularly requested to make use of a distinctive signature or initials, and avoid the practice of signing themselves "Reader," "Subscriber," "Old Subscriber," &c. Much confusion will be spared by attention to this rule.

#### INDIAN SPECIAL CORRESPONDENCE.

To the Editor of the MEDICAL PRESS AND CIRCULAR.

DEAR SIR,—What a pity your Indian "Special," for whose communications I look forward as eagerly as for my weekly *Punch*, did not give us his authority for the remarkable statement that Oliver Cromwell "was buried by soldiers puffing (tobacco) vigorously in derision." He ought to lose no time in communicating it to Mr. Carlyle, who would, no doubt, gratefully immortalise him in the next edition of his "Life" of the great Protector.

Yours obediently,

SOME SIDES.

**PRIZE ESSAYS.**—We are asked to state by the editor of the *Greenhithe Monthly Magazine* that the society of which this magazine is the organ propose offering an annual prize of Five Guineas for the best essay on some subject of special interest to the inhabitants of rural and suburban districts. The subject for the first prize will be, "On the Comparative Healthiness of Country and Town Life, and the best means of applying Sanitary Science so as to ensure the Highest Development of Health, and the Prevention of Disease." The successful essay to become the property of, and be published in the *Greenhithe Magazine*. The terms and particulars of the prize can be obtained by forwarding a stamped directed envelope, addressed to the Editor, Greenhithe, Kent.

**A MEDICAL ALLIANCE.**—Readers will probably have innumerable cases of vexatious prosecutions of members of the profession in their minds, notably that of Mr. Pope, of Brixton, upon which we commented in our last. We now observe that "A Medical Alliance" has been started for the purpose of defending members of the profession who from time to time are made victims of extortion and false accusations. Before, however, giving such an Alliance our support, we shall want to know that the remedy is not worse than the disease. Who is the hon. secretary and who the committee, of this quickly constituted "Medical Alliance"? We have no doubt it is all fair, and above board, but we want to be assured of the fact; no gentleman attaching his name to so laudable an undertaking need be ashamed of it.

**MILITARY SERVICE OF MEDICAL OFFICERS.**—Though, under the provisions of the Royal Warrant of 1873, military service is no longer necessary, as a qualification for promotion to the rank of Surgeon-Major, it has been intimated under instructions from the Secretary of State that Government will take into consideration the amount of military service a medical officer has performed in making selection for the administrative rank.

#### BOOKS, PAMPHLETS, AND MEDICAL JOURNALS RECEIVED.

*Incrustations sur la Lèvre Vocale.* Par le Docteur Mandl. Paris and London: Baillière.

*Nomenclature of Diseases, prepared for the Use of Medical Officers of the United States' Marine Hospital Service.* By J. M. Woodworth, M.D., Washington.

*Statistics of Families in the Upper and Professional Circles.* By Charles Ansell. London: C. and E. Layton.

*On the Past Progress and the Present Aspects of Medicine.* By Alex. Harvey, M.D. Aberdeen.

*Archives of Ophthalmology and Otology.* Vols. III. and IV. New York: Wood and Co.

#### VACANCIES.

Dorset County Hospital. House Surgeon and Secretary. Salary, with apartments and board. Testimonials, &c., under cover to the Chairman at the Hospital.

Bristol General Hospital. Physician's Assistant. Salary, £50, with board and lodging. Applicants must address the Secretary.

Convalescent Hospital, Wimbledon. Resident Medical Officer. Salary, £75, with board, &c. Further particulars of the Secretary of St. George's Hospital.

Northampton Infirmary. Dispenser. Salary, £100 per annum. Further particulars of the Secretary.

York Lunatic Asylum. Resident Medical Superintendent. Salary, £300 per annum, with residence, vegetables, coals, gas, &c. Applications to the Committee, under cover to the Secretary, Bootham, York.

Newcastle-on-Tyne Infirmary. Senior House Surgeon. Salary, £100 per annum, with board and residence. Particulars of Dr. Page at the Infirmary.

Southport Convalescent Hospital. Resident Medical Officer. Commencing salary at £80, with board and attendance. Applications to the Chairman of the Hospital.

Gloucester County Prison. Surgeon. Salary, £175 per annum. Full particulars on application to the Governor.

Sunderland Infirmary. Junior House Surgeon. Salary commencing at £60 per annum, with board and residence. Address the Secretary to the Medical Board.

Narberth Union. Medical Officer for District No. 2 of the Union. Emolument, £35 per annum, with fees extra. Address the Clerk to the Board.

Three Counties Pauper Lunatic Asylum. Resident Medical Superintendent. Salary, £800, with furnished house, coals, &c. Applications to the Clerk to the Committee, St. Neots, Hunts.

#### APPOINTMENTS.

BARR, J., M.B., L.R.C.S. Ed., Junior House Surgeon to the Northern Hospital, Liverpool.

BIRTHWISTLE, W., M.R.C.S.E., Medical Officer for the Skipton District and the Workhouse of the Skipton Union, Yorkshire.

CHARTRIS, WILLIAM, L.R.C.S.I., L.K. & Q.C.P.I., Medical Officer to the Strangford Dispensary, Downpatrick Union.

DAVIES, J., M.D., M.R.C.S.E., Medical Officer of Health for the Ebbw-valle Urban Sanitary District.

FOTHERGILL, J. MILNER, M.D., M.R.C.P., Physician to the West London Hospital, vice Prof. D. Ferrier, M.D., appointed Assistant Physician to King's College Hospital.

FOX, C., M.R.C.S.E., Medical Officer and Public Vaccinator for the Topeham District of St. Thomas Union, Exeter.

GIVEN, M., L.K.Q.C.P.I., L.R.C.S.I., Medical Officer and Public Vaccinator for the Blessington and Ballymore-Eustace Dispensary District of the Naas Union, co. Kildare.

GRIFFITH, R. G., M.R.C.S.E., Medical Officer to the East Indian Railway at Benares.

HARRIS, J. A., M.B., M.R.C.S.E., Senior House Surgeon to the Northern Hospital, Liverpool.

HARRIS, W., L.R.C.P. Ed., M.R.C.S.E., Resident Medical Superintendent of the Norwich Lunatic Asylum.

HODGSON, W., M.R.C.S.E., Medical Officer and Public Vaccinator for the Aspatia District of the Wigton Union, Cumberland.

MACCARTHY, E., M.D., M.R.C.S.E., Medical Officer for No. 3 District of the Dursley Union, Gloucestershire.

MACPHERSON, C. M.B., L.R.C.S. Ed., Medical Officer for the Parish of Stromness, Orkney.

PHILLIPS, E. E., L.R.C.P. Ed., M.R.C.S.E., Medical Officer for the Prittlewell District of the Rochford Union, Essex.

POWELL, J., M.R.C.S.E., a Junior House Surgeon to the Royal Free Hospital, London.

PRISTLEY, C. E., L.R.C.P. Ed., M.R.C.S.E., Resident Medical Officer to the West Norfolk and Lynn Hospital.

REID, A. W., M.B., C.M., L.R.C.S. Ed., Physician-Superintendent of the City of Glasgow Fever Hospital.

RICE, G., M.B., House Physician to the Royal Infirmary, Manchester.

ROBERTSON, J. A., M.B., Parochial Medical Officer for Wemyss, Fifeshire.

ROBERTSON, J. D., M.D., Medical Officer of Health for the Penrith Rural Sanitary District.

## Marriages.

AKERMAN—WARLAND.—On the 29th ult., at St. Mary's Church, Paddington, William Akerman, L.K.Q.C.P.I., M.R.C.S.E., of Golborne Road, Upper Westbourne Park, to Annie, only surviving daughter of the late Capt. Warland, of Poole, Dorset.

ALLWOOD—HARDERN.—On the 2nd inst., at St. James's Church Sutton, near Macclesfield, J. Philip Allwood, M.R.C.S., L.R.C.P., of Macclesfield, to Elizabeth Thorneycroft, only daughter of Wm. Thorneycroft Hardern, M.R.C.S., L.A.C., &c., of Sutton.

FERRIER—WATERLOW.—On the 3rd inst., at St. John's Church, Redhill, David Ferrier, M.D., Professor of Forensic Medicine, King's College, London, to Constance Eliza, third daughter of Mrs. Albert C. Waterlow, Fairlawn, Redhill, Surrey.

VEREKER-BINDON—DOWNIE.—On the 2nd inst., at St. Peter's Episcopal Church, Edinburgh, William John Vereker-Bindon, L.R.C.P.E., L.R.C.S.E., to Mina, youngest daughter of the late Thomas Walters Downie, Esq., Trinitium, Stirling.

SPARKS—PANTON.—On the 2nd inst., at Holy Trinity Church, Dorchester, Edward Isaac Sparks, M.A., M.B. Oxon., of London, to Sarah Emily, second daughter of the late George Panton, Esq., of Dorchester.

## Deaths.

BALLARD.—On the 1st September, Thomas Ballard, M.D., of Southwick Place, aged 56.

DOWLING.—On the 19th August, James Harnett Dowling, M.D., of Cerne Abbas, aged 60.

POTTER.—On the 29th August, at Kilkenny, John Potter, M.D.

Established 1848.

PROFESSIONAL AGENCY AND MEDICAL TRANSFER OFFICE.

50 LINCOLN'S INN FIELDS, W.C.

J. BAXTER LANGLEY, LL.D., M.R.C.S., F.L.S., &c. (KING'S COLLEGE), and Author of VIA MEDICA.

Has always upon his books a large number of desirable Investments and available Appointments for negotiation.

The business of the Professional Agency is based upon the general principle, that no charge is made unless work has been done and services rendered.

No Commission charged to Purchasers.

Full information as to terms, &c., sent free on application.

Office hours, from 11 till 4; Saturdays excepted.

COMPETENT ASSISTANTS provided without expense to principals. No Gentlemen recommended whose antecedents have not been inquired into.

PRACTICES AND PARTNERSHIPS NOW OPEN for Negotiation (in addition to those advertised in Dr Langley's List, which is sent post free on application).

Z 16. OPENING for a gentleman with limited capital in the suburbs of a large town. An efficient introduction, by way of partnership, can be given by an aged practitioner, retiring from ill-health. Present receipts about £400 a year, but scope for almost unlimited increase.

Z 15. Within twenty miles of London, AN EASILY-WORKED PRACTICE, consisting wholly of an upper-class connection. The receipts are about £400 a year, but in the hands of an active gentleman £1,000 a year might be earned. Very little night work. House contains ten rooms, with beautiful garden, paddock, &c. Rent, £40.

Z 14. SUFFOLK. EXCELLENT UNOPPOSED PRACTICE FOR SALE. Receipts £450 a year, capable of immediate increase. Appointments, £60. House contains twelve rooms, and is pleasantly situated; rent low. Introduction as long as desired.

Y 950. In the Suburbs of London, an OLD-ESTABLISHED PRACTICE, yielding £1,000 a year. Patients good class. All appointments have been declined. Visits, 4s. and upwards; midwifery chiefly £2 2s. and upwards. One horse and carriage sufficient for the work. The house is well situated in a pleasant and healthy locality, contains eight rooms, and is held on beneficial lease at a rental of £80 a year. The whole Practice is easily worked, and the connection lies within a small area. The Incumbent is retiring from the profession.

Z. 13. GLOUCESTERSHIRE. PLEASANT COUNTRY PRACTICE, realising about £500 a year, FOR TRANSFER. Midwifery fees chiefly £2 2s. No opposition. Appointments bring in £60. The house is convenient, with stabling, coach-house, &c. A thoroughly efficient introduction can be given.

Z 12. In a pleasant and prosperous town in the Midland Counties, A WELL-ESTABLISHED PRACTICE, yielding between £600 and £700 a year. Patients good middle class. The house is the best in the town, contains sixteen rooms, with offices, stabling, and coach-house. Rent, £90. A smaller professional residence can be had if required, as the Incumbent desires to enter upon a partnership conditionally arranged elsewhere. Liberal terms would be conceded to a suitable purchaser.

Z 11. Near the sea-side. In a pleasant town, a WELL-ESTABLISHED PRACTICE FOR TRANSFER on easy terms. The present receipts average about £470 a year. Easily worked appointments produce about £300 a year. No assistant required. One pony sufficient for the work. Large and convenient house, with garden, stabling, and coach-house. Rent, £30. There are about sixty midwifery cases a year, the majority at £1 ls. Only one opponent. Premium, one year's purchase, part of which may be left on security to suit the convenience of purchaser. An effective introduction as long as desired.

DR. LANGLEY'S SEPTEMBER LIST of Selected Practices and Partnerships for negotiation is now ready. Post free on application.

NEWPORT UNION.

ACHILL DISPENSARY DISTRICT.

TO MEDICAL OFFICERS.

The COMMITTEE OF MANAGEMENT of the Achill Dispensary District will on TUESDAY, the 15th day of SEPTEMBER next, proceed to Elect two

MEDICAL OFFICERS for the above District, at a Salary of One Hundred Pounds a year each.

The District is divided—viz., the Achill District and the Ballycroy District.

The Achill District comprises the Electoral Divisions of Achill, Dooga, and Slievemore, and a portion of the Corraun Achill Division. The Ballycroy portion of the District comprises the Electoral Divisions of Ballycroy North, and Ballycroy South, and the Townlands of Dooaghbeg, Cushlicka, Cuilloughan, Owenduff, and Tonreege East and West.

The Medical Officer of the Achill portion of the District has heretofore held the appointment of Surgeon and Agent to the Admiralty, which is an office of considerable emolument, and there is also a fair private practice.

Applications, accompanied by Diplomas and Testimonials, to be forwarded to the Honorary Secretary, JOHN CARR, Esq., Mweelin, Achill, Newport, co. Mayo.

By Order, D. BROWNE, Clerk of Union.

Board-room, Newport, 26th August, 1874.

IRVINESTOWN UNION.

MEDICINES, &c., WANTED.—The BOARD OF GUARDIANS of this Union will, on WEDNESDAY, the 16th SEPTEMBER, consider Tenders for supplying, from 30th September, 1874, to 29th September, 1875, the Workhouse Infirmary and the several Dispensaries in the Union with Medicines, &c., of best quality, free of carriage.

All Empties returned at the Contractor's expense, and the amount charged in Invoice.

Forms of Tender may be had on application to me, or at Mr. TROX'S.

By Order, C. GRAHAM, Clerk of Union.

Board-room, Irvinestown, 24th August, 1874.

KELLS UNION.

TENDERS will be considered by the BOARD OF GUARDIANS on SATURDAY, the 19th instant, for Supplying the Workhouse Hospitals and Union Dispensaries with

MEDICINES AND MEDICAL APPLIANCES for One Year, from the 29th instant, which must be delivered carriage free, and the empties packed and removed at the Contractor's expense.

Printed Forms of Tender can be had at this Office.

Tenders will also be considered for the supply for same period of BOOKS, FORMS, STATIONERY, CLOTHING MATERIALS, &c.

By Order, NATH. LACY, Clerk of Union.

Workhouse, Kells, 1st September, 1874.

OMAGH UNION.

TENDERS will be received by me, up to Four o'clock P.M., on FRIDAY, the 11th of SEPTEMBER next, and considered by the BOARD OF GUARDIANS on the following day, for supplying the Workhouse and the Eight Dispensaries of the Union with

MEDICINES AND MEDICAL APPLIANCES for the year ending 29th September, 1875, free of all expense for carriage, packages, jars, bottles, &c.

Forms of Tender can be had on application here; no other will be entertained.

By Order of the Board,

WILLIAM J. MCKNIGHT, Clerk of the Union

Board-room, 22nd August, 1874.

GLENNAMADDY UNION.

The BOARD OF GUARDIANS of the above Union will, at their Meeting to be held on TUESDAY, the 15th day of SEPTEMBER, 1874, receive proposals for supplying the Workhouse and three Dispensaries with

MEDICINE, MEDICAL AND SURGICAL APPLIANCES, &c., for Twelve Months, from the above date.

Tenders, which must contain the names of Two solvent Persons willing to join in a Bond for the faithful performance of the Contract, will be received by me up to Twelve o'clock on the above-named day.

By Order,

EDMOND SMYTH, Clerk of Union.

Board-room, Glennamaddy,

1st day of September, 1874.

GLENTIES UNION.

DOOCHARY DISPENSARY DISTRICT.

The COMMITTEE OF MANAGEMENT of the above Dispensary District will, at the Meeting to be held at Lettermacaward Dispensary on MONDAY, the 14th day of SEPTEMBER, 1874, at Twelve o'clock noon, proceed to elect a properly-qualified

MEDICAL OFFICER for the District, at a Salary of One Hundred Pounds per annum, exclusive of Registration and Vaccination fees.

Applications, with Testimonials and Diplomas, showing that they possess the qualifications prescribed by the regulations of the Local Government Board, will be received by me up to Twelve o'clock noon on the above day.

By Order of the Committee,

JOHN O'DONNELL, Ballinamore House,

Dated 3rd September, 1874. Knockletra, Stranoriar.

# The Medical Press & Circular.

"SALUS POPULI SUPREMA LEX."

WEDNESDAY, SEPTEMBER 16, 1874.

## STUDENTS' NUMBER.

THE unsettled condition of the educational system of our profession which the demand for reforms and the keen competition of teaching and qualifying institutions have created has rendered more essential than ever our yearly budget of advice and instruction to the Student. From year to year important changes are effected, not only in the field of study of the Student, and in the method and nature of his examinations, but also in the arena for his employment after he has achieved his entry within the pale; and it is, we think, to the great advantage of the profession that these changes and the whole state of medical education should once in the year be brought prominently under the notice of our readers in an intelligible form. The primeval "Students' Number"—a reprint of incomprehensible official regulations and vapid paragraph puffs—is, like the Introductory Lecture, falling into disfavour, and at least one of our contemporaries joins with us in the effort to provide its readers with the practical information which they require.

We conceive it to be our rôle to place in the hands of the Student and his guardians the semi-confidential details, directions, and hints which College Regulations are not intended to communicate, and which are only known to those conversant with the various systems of education, examination, and qualification, and with the ultimate prospects of the Student.

The Student having—possibly by means of the hints derived from our pages—selected his College and Hospital, will doubtless provide himself with the full particulars of curriculum and educational arrangements in their full extent.

As we have, with the view of economising the space at our disposal, dispensed with all details which are contained in the advertisements of the various institutions, we beg to refer our readers to the announcements of each in our advertising pages, in connection with which the editorial information should be read. Our readers are thus, we trust, in possession of a complete *vade mecum* of the method and means of medical education.

## The Destination of the Newly-qualified Surgeon.

### THE PUBLIC SERVICES.

#### ARMY MEDICAL SERVICE.

IN by-gone years this Service was the prize of the profession, and was sought after by the best students of their year, because it ensured to the successful competitor a sufficient salary, a good social position, and a certain hope of promotion. Within the last decade the Service has, under the management of successive cobblers of the system, retrograded, and is now rather a resource for unattached students than an aspiration of the best class of students. Many changes have taken place which render it desirable that the expectant army surgeon shall, in Scotch parlance, "bide a wee" until he be definitely informed what terms of employment he may expect. Mr. Cardwell's Medical Unification Warrant, promulgated last year, has effected serious changes. Firstly, the title of "Assistant" is abolished, and all medical officers enter the Service as surgeons, and, at their first promotion, are called Surgeon-Major. Secondly, they are not permanently attached to any one

regiment: all medical officers are now on the general staff; all wear the same uniform, and are drafted as may be required for temporary service of a few months or a couple of years with any particular regiment. These arrangements have created extreme discontent in the Army Medical Service, especially as promotion, after fifteen years' service, is not definitely provided for; forage allowances are curtailed, and pay, after fifteen years' service, is reduced. It is easy to see that the position of an army surgeon, attached to-day, say, to a crack Hussar regiment in London, and next week, perhaps, to a squad of infantry on police duty at the dépôt at Ballinacree, will not be very desirable. Notwithstanding all these serious drawbacks, the student, after qualification, may very probably elect the Army Medical Service, and we therefore afford him all information as to his access to it.

The appointment of surgeon in the Army is open to all who can prove their claim to it by superior answering. Candidates for the British Medical Service must be unmarried, and not more than twenty-eight years of age. The competitive examinations are held at Chelsea, usually in the first weeks of February and August. The candidate is not required to produce any other qualification before presenting himself for examination than his licence to practise and certificates of registration, age, moral character, and physical capabilities.

The candidate must make a declaration that he labours

under no mental or constitutional disease, nor any imperfection or disability that can interfere with the most efficient discharge of the duties of a medical officer in any climate. His physical fitness will be determined by a board of medical officers, who are required to certify that the candidate's vision is sufficiently good to enable him to perform any surgical operation without the aid of glasses. A moderate degree of myopia would not be considered a disqualification, provided it did not necessitate the use of glasses during the performance of operations, and that no organic disease of the eyes existed.

Having received his diplomas in surgery and medicine, both of which are essential to his competition, the student is obliged to apply himself vigorously to the study of certain collateral subjects, which he does usually through the medium of a "grinder." He must perfect himself in chemistry, pathology, and comparative anatomy, and if he can throw a proficiency in botany and natural history and French and German into the scale, he will materially improve his position in the scale of merit, and establish for himself a character with the authorities for industry and scientific attainments.

The surgeon is subjected to three separate examinations within the first ten years of his service, each examination having a definite object—the first, to ascertain, previous to his admission into the Service as a candidate, his scientific and professional education, and to test his acquirements in the various branches of professional knowledge; the second, after having passed through a course of special instruction in the Army Medical School, to test his knowledge of the special duties of an army medical officer; and the third, previous to his promotion, to ascertain that he has kept pace with the progress of medical science.

For the first candidates will be examined in the following, and the highest marks attainable will be distributed as follows:—1. Anatomy and Physiology, 1000 marks; 2. Surgery, 1000; 3. Medicine, including Therapeutics, the Diseases of Women and Children, 1000; 4. Chemistry and Pharmacy, 100. Examinations will also be held in French and German (150 each), 300 marks; Natural Sciences, 300. The Natural Sciences will include Comparative Anatomy, Zoology, Natural Philosophy, Physical Geography, and Botany, with special reference to *Materia Medica*. The number of marks gained in both the voluntary subjects will be added to the total number of marks obtained by those *who shall have been found qualified for admission*, and whose position on the list of successful competitors will thus be improved in proportion to their knowledge of modern languages and natural sciences.

The candidate having sent in his papers, and followed them to London, meets his competitors at Chelsea.

For the first two days of his examination he is employed in penning answers to printed questions; for the third and fourth days he is examined *viva voce* on all subjects; and on the fifth and sixth days he is tested by the diagnosis of disease at the bedside in the hospital, by the application of surgical apparatus, and by operations on the dead subject. This trial finished, the successful candidates (varying in number from fifteen to thirty, are selected.

#### SERVICE ON THE WEST COAST OF AFRICA.

A certain number of candidates, whose answering has been satisfactory, but not sufficiently so to entitle them to a place, were formerly offered appointments on the West Coast of Africa, but recently they have been appointed to the Naval Medical Service, as vacancies on the Coast have not existed for some time. These situations, while they

are subject to strong objection on the score of the deleterious nature of the climate, possess some advantages for those whose health can resist its influence. The districts comprised under the West Coast Districts are Sierra Leone, Gambia, and Cape Coast Castle. If the candidate accepts the appointment he is sent out at once, without the period of probation to which others are subjected at Netley Hospital. He is allowed to spend a year at home, on full pay, for every year spent in Africa, and the entire period at home and abroad should count as service for pension.

#### PROBATION AT NETLEY HOSPITAL.

The competitor who has been so fortunate as to obtain a place in the ordinary Service is not allowed to join a regiment at once. He is obliged to undergo a probation of four months at Netley Hospital, near Southampton, where he is compelled to attend the following lectures—viz.: Hygiene, by Dr. Parkes; Pathology, by Dr. Aitken; Military Surgery, by Dr. Longmore; and Clinical and Military Medicine, by Dr. Maclean. The lectures on Military Surgery include gunshot and other wounds; arrangements for the transport of wounded; duties of army surgeons in the field, during sieges, on transport, &c., and other special subjects. Those on Military Medicine refer to the tropical and other diseases of the British possessions and colonies, and to the losses by disease. The lectures on Hygiene relate to the examination of water, air, food, clothing, &c., of the soldier, his duties and exercise, and the circumstances affecting his health, meteorology, statistics, and prevention of disease. The lectures on Pathology have reference chiefly to the scientific examination of tropical diseases, and of the other complaints which the army surgeon is especially called on to investigate. The candidates also attend the wards of the hospital under the Professors of Medicine and Surgery, to make themselves acquainted with the system of recruiting, and the modes of keeping the Army Medical Returns. They are also called on to make post mortem examinations, to operate on the dead body, and to pass through laboratory practice on the modes of recognising the qualities and adulterations of food, and on microscopic examination of morbid tissues, and adulterations of food, &c. During his preliminary training here the student is understood to be in Her Majesty's Service; he wears uniform, is under military discipline, and receives pay at the rate of five shillings per day, and two shillings per day for lodging money, if he be not provided with lodgings in the hospital. A sum of money equal to the half-yearly interest on £1,200, the surplus from the "Herbert Memorial," is at the end of each session awarded to the candidate who has the highest number of marks, the fortunate young man who wins this "Blue Ribbon of Netley" being tolerably certain to be well provided for. At the termination of the four months he is again examined in the subjects in which he has been instructed during that period, his marks are added to those obtained by him at the competitive examination, and his position on the list of merit determined by the total. Successful candidates are now eligible to be gazetted to a regiment, or employed on the staff, and enjoy all the rank and honour, pay and privileges, of surgeons, as provided by the regulations.

Thus it will be observed that the first, or Chelsea examination, simply admits the candidate to the Service, and the conjoint result of it and the Netley examination determines his order of merit.

#### LIFE AT NETLEY.

The medical candidates, as the surgeons are called until they have passed out of the hospital by their second examination, are congregated at Netley, in addition to the com-

missioned officers who may be there. During the period of his residence at the Army Medical School each candidate will receive an allowance of 5s. per diem, with quarters, or 7s. per diem without quarters, to cover all cost of maintenance; and he will be required to provide himself with uniform (viz., the regulation undress uniform of a surgeon, but without the sword). Each candidate has to pay £5 towards the mess fund, one half on his arrival and the remainder when he has passed his second examination. He is then a member of the mess, and entitled to dine at any time during the remainder of his service. The cost of dinner is 2s. 4d. daily, not including wine, and of breakfast from 10d. upwards.

#### THE PROMOTION EXAMINATION.

But there is still one other which *must* be passed before he is promoted to full surgeoncy, and *may* be passed at any time after five years' service.

A series of printed questions will be sent by the Director-General to the principal medical officers of stations where surgeons may be serving, who will deliver these sealed questions to the surgeons, and see that they are answered without the assistance of books, notes, or communication with any other person. The answers are to be signed, and delivered sealed to the principal medical officer, who is to send them, unopened, to the Director-General, together with a certificate from the surgeon of the regiment, or other superior medical officer, that the surgeon has availed himself of every opportunity of practising surgical operations on the dead body.

The surgeon will also be required to transmit a medico-topographical account of the station where he may happen to be, or of some other station where he may have been resident, or else a medico-statistical report of his regiment for twelve months.

If the Examining Board and the Director-General are satisfied with the certificates and answers, and with the report, the surgeon will be held qualified for promotion.

#### GENERAL OBSERVATIONS.

The bachelor surgeon, commencing with an income of £182 10s., in addition to quarters, coals, and candles, has the use of a soldier servant for 10s. a month, and 15s. for washing. Mess bills and subscriptions vary according to circumstances, high in the cavalry, rifle brigade, and certain line regiments, at home, but moderate in the artillery and line generally; about £10 would represent the outlay. Some can live cheaper by taking breakfast in their own room—the bed in one corner, the tub in another, not a wholesome arrangement. Respectable uniform, a gentlemanly appearance in dress must be maintained, and the servant clad for everyday work besides to wait at mess. Being on the staff, as a rule, is comparatively cheaper for married men, but the bachelor, friendless and homeless, will find there is nothing better than a good line regiment, especially where the colonel and the surgeon pull together, and the latter takes a fair share of work. Those who marry early without means should remember they may reach the age of forty as surgeons with a large family to keep and drag about on an income under £300, deducting income-tax. The more pursuits and accomplishments a medical officer has the better, especially if at the same time he is a good doctor and a gentleman. For the combatant officer a position is made; the medical man makes his own, as in civil life. The Army would attract good men if the dead-lock and stagnation were removed by optional retirement at £1 a day after twenty years' service. Unless the medical officer has private means he should not remain a day in England.

The daily rates of pay of medical officers of the Army are as follows:—Pay daily: Surgeon-General down to Surgeon-Major, £2 10s. to £1 10s. a day, according to length of service; Surgeon-Major 17s. 6d., after fifteen years' service £1, after twenty years' service £1 4s., after twenty-five years' service £1 7s.; Surgeon, on appointment, 10s., after five years' service 12s. 6d., after ten years' service 15s., after fifteen years' service 17s. 6d.

Medical officers have a right to retire on half-pay after twenty years' service; Surgeons-Major or Surgeons shall be placed on the retired list at the age of fifty-five.

Surgeon-Major of twenty years' service rank as Lieut.-Colonel; Surgeon-Major under twenty years' service rank as Major; Surgeon of six years' service rank as Captain; Surgeon under six years' service rank as Lieutenant.

Forage is granted to medical officers for such number of horses as are necessarily kept by them for duty.

It will be understood that this latter privilege is illusory, because a Surgeon-Major (though ranking as a mounted officer) may not have duty for a horse, and a surgeon who may have necessity for a horse to-day may be moved to-morrow to a post where no horse is requisite, and will have to sell or keep the animal at his own risk.

The official regulations may be obtained by application to the Director-General, Army Medical Department, 6 Whitehall Yard, London, S.W.

#### INDIAN MEDICAL SERVICE.

The regulations, subjects, and times for examination are the same as for the Army Medical Department. Passage allowance to India on appointment will be given, or a passage provided. When passages are provided on board the Indian troop ships, a charge for messing will be made at the rate laid down in the Royal Passage Warrant of 1865. Pay at 10s. a day will be allowed from date of passing final examination at the Army Medical School.

Indian allowances and time of service for pension will reckon from the date of arrival in India.

Surgical instruments are provided in India by the Government for the use of medical officers.

The pay of medical officers in the Indian Service is much better than at home, and, if unmarried, the cost of living not greater. Moreover, the medical officer frequently holds lucrative civil medical appointments which afford him a handsome increase of income. Without doubt, to a healthy, temperate, unmarried man the Indian Service is greatly preferable to that at home, but to a delicate person, or one burthened with a wife and children, the advantages are questionable.

For official regulations of the Indian Medical Service apply to the India Office, Whitehall, London, S.W.

#### NAVAL MEDICAL SERVICE.

In applying to be admitted as an Assistant-Surgeon in the Royal Navy it is merely required to address a letter to the Secretary to the Admiralty, stating that you are in possession of a diploma from such a College—naming it; that you are desirous of being admitted as a candidate; when, if there are any vacancies, you will be informed when you will be required to present yourself at Somerset House, London, for examination.

The subjects and method of examination and the subsequent service at Netley are in all respects similar to those referred to above under the head of Army Medical Department.



Having passed your examination you will, in the course of the following day, receive your appointment as acting Assistant-Surgeon to one of her Majesty's ships, either for service on board that ship, or for service on shore, at one of the naval hospitals—Haslar or Plymouth. You will at the same time be informed that you are granted two or three weeks, as you may require, leave of absence, to enable you to provide your uniform and appointments. These you can get at any of the naval outfitters.

The expense of an Assistant-Surgeon's uniform is about £47 5s. You must also provide yourself with a set of surgical instruments, which will cost you from ten to fifteen guineas. All kinds of underclothing, towels, handkerchiefs, &c., may be purchased much more advantageously from a regular dealer in those things than from any naval outfitter.

#### ADVANCE OF PAY ON JOINING.

The monthly mess subscription varies in ships, according to the station they are on, from £2 10s. to £3 10s. per month. This subscription does not include anything for wine or liquors of any kind. Whatever amount of these you may consume will be paid for by you separately, at the end of each month or quarter. But as all wines are permitted by sanction of the Admiralty, to be shipped free of duty, you drink them so much cheaper on board than you could the same qualities of wine on shore. The monthly subscription of say £3, with the Government allowance of £11 3s. 8d. per annum to each member in lieu of provisions, is generally found sufficient to meet all ordinary expenses of messing.

It is the custom in all ward-room messes to have an extra dinner on two days of the week—generally on Monday and Thursday. The days so selected are styled "field-days." It is on these days that guests are invited to dine by the mess. The guests thus invited are called public guests, and such invitations entail no extra subscription from any one, except for the extra wines consumed. It is usual to invite the captain, and other superior officers that may be on board, once a week; the other public guests are so many of the junior officers of the ship; and, if in port, officers of the sister service, and other public functionaries. The captain, or admiral, if there be one on board, usually has two or three ward-room and two or three gun-room officers to dine with him on every other day of the week than that on which he dines in the ward-room. Any member of the ward-room mess inviting a private friend to dine with him on board pays usually from 2s. 6d. to 3s. 6d. according to the rule of the mess) for his friend's dinner, in (addition to any extra expense for wine.

The foregoing are the whole of the ordinary and extraordinary expenses of messing in the ward-rooms of her Majesty's ships, and which should not, with drinking a reasonable quantity of wine, beer, &c., exceed fifty guineas per annum.

Officers in the Navy, wherever they may be serving, can remit, by the paymaster of the ship, without any expenses, any portion, or the whole, of their pay that may be due to them on the last day of each quarter.

#### SERVANTS.

Assistant-Surgeons are allowed only half a servant each, or in other words, a servant between two of them.

These servants are entered on the ship's books with the rating of officers' servants. Their pay from the Admiralty is about £17 per annum and their provisions; and where they are well-conducted, attentive lads, it is usual for their masters to give them 10s. a month, which makes their pay up to about £29 per annum.

The pay of naval medical officers has hitherto been the same as for their military brethren.

#### PENSIONS OF MEDICAL OFFICERS.

Besides the half-pay awarded to medical officers, there are three good-service pensions of 10s. each per diem awarded to the three inspectors-general who have completed the longest and most meritorious service.

There is also one Greenwich Hospital pension of £30 per annum awarded to a deputy inspector-general.

There are fourteen other Greenwich Hospital pensions of £50 each per annum, awarded to those fourteen deputy Inspectors-General, Staff-Surgeons, and Surgeons who are considered by the Admiralty to be most deserving of them.

#### PROMOTIONS.

An Assistant-Surgeon having served three years may be examined as to his qualifications for promotion to the rank of Surgeon. If he be serving abroad he may, if he wish it, be examined provisionally by an Inspector or Deputy Inspector-General and three Surgeons; and as soon after his arrival in England as may be convenient for him to present himself at Somerset House for his regular and final examination. To enable Assistant-Surgeons to pass this examination satisfactorily, they are granted, on application, two months' leave of absence to prepare themselves for it. The use of passing the provisional examination abroad is, that the Assistant-Surgeon, having served five years, is then eligible for promotion into any vacancy that may occur, as Acting Surgeon.

If the vacancy occurring shall have been caused by the death of an officer of superior rank, this promotion of Acting Surgeon will be confirmed as Surgeon on passing the regular examination at Somerset House. If the vacancy has occurred from any other cause than that of death, the Assistant-Surgeon appointed to fill it, whether he may have passed only provisionally or finally, will be appointed only as Acting Surgeon until the pleasure of the Admiralty be known, who may either confirm him in it, or supersede him by the appointment of a Surgeon from half-pay.

Surgeons are promoted to the rank of Staff-Surgeons on twenty years' service provided that ten years have been completed since passing for the rank of Surgeon.

By an Admiralty regulation, dated the 12th of July, 1867, promotion to Staff-Surgeon is to be open to officers for distinguished or special services, although they may not have completed twenty years' service.

#### PRIZE MONEY.

Medical officers share in the proceeds of all prizes captured from the enemy, of captures and seizures under the several Acts of Parliament passed relating to the revenues of Customs, and of trade and navigation, for the abolition of the slave trade, for the capture and destruction of pirates and piratical vessels, and of the rewards conferred for the same, as also in the awards of all salvage granted to the crews of her Majesty's ships and vessels of war, with other officers of corresponding ranks.

The full and half-pay of Naval Medical Officers is in accordance with the following scale:—

Full-pay: Surgeon—Under five years' service, 11s.; under eight years' service, 12s. 6d.; under eleven years' service, 14s.; under fourteen years' service, 15s. 6d.; above fourteen years' service, ditto, 17s. Staff-Surgeon 2nd class—On promotion, or under fourteen years' service, 18s.; ditto, or under seventeen years' service, £1; and for each additional year of service, 1s. a day more until the maximum is reached—namely, £1 2s. Staff-Surgeon—On promotion, or under twenty years' service, £1 3s.; ditto, or above twenty years' service, £1 4s.; and for each additional year of service, 1s. a day more until the maximum is reached—namely, £1 10s.



Deputy Inspector-General and Inspector-General from £1 11s. to £2 10s. Half-pay: Surgeon—6s. to 17s., according to service. Staff Surgeon 2nd class—11s. to 14s. Staff Surgeon—16s. to 18s. 6d. Deputy Inspector-General and Inspector-General, £1 1s. to £1 18s.

#### POOR-LAW MEDICAL SERVICE.

A YOUNG qualified practitioner, indisposed to be an assistant, and desirous of commencing general practice without investing any money in purchasing a succession, may, perhaps, obtain a Poor-law appointment, though he should scarcely expect to obtain a livelihood from this inadequately remunerated employment.

##### ENGLISH POOR-LAW MEDICAL SERVICE.

Prior to the passing of the Metropolitan Poor Act of 1867 the English Poor-law Medical Service may be said to have been in the hands of the guardians, supervised by the Poor-law Board. Each parish in England and Wales had its guardians of the poor, and these parishes were grouped together to form unions. The unions were divided into districts for medical relief. Union medical officers, therefore, have the care of a district, or sometimes the care of the workhouse of the union—sometimes of both. The officer was elected by the guardians, and the appointment approved by the Board. He was required to have both a medical and surgical qualification. In some instances these were specified, but almost always the London College of Surgeons and Apothecaries' Hall were the two most favoured diplomas. For this reason London students will still continue to take these qualifications, whatever else they may add to them. But the L.R.C.P. Lond. is now recognised as a full qualification, both medical and surgical. The salaries of Poor-law appointments are very low. They are, however, sought after by young men as a means of getting into practice, and are often almost obligatory in the country to prevent fresh opposition being introduced. The Metropolitan Poor-law Act, 1867, assimilates the Poor-law, so far as London is concerned, to that of Ireland, and the Poor-law Board is now merged in the new Local Government Board. It has established in London asylums and dispensaries, and distributed the cost of supporting them over the metropolis. Under the new Public Health Act many Poor-law officers have been also appointed medical officers of health.

#### THE IRISH POOR-LAW SERVICE.

THE newly-qualified medical practitioner who may elect to try his luck in the Irish provinces sets his hopes, in the great majority of instances, upon obtaining one or more Poor-law medical appointments in some district where there is hope of private practice. There are 163 workhouses and about 793 dispensary medical officers, besides apothecaries. The number of vacancies that occur annually averages 100. The average salary in this service is now about £103 15s.; and when it is taken into consideration that in the vast majority of rural districts it is necessary to keep a horse, and in some a boat as well, the average area being from forty to sixty square miles, it is plain that there will not be a very large margin left from the public emoluments. The medical officer is also *ipso facto* the registrar of births, marriages, and deaths, and the medical officer of health for the district, under the Public Health Act, passed last session. The former office, in country districts, seldom yields more than £10 a year, and often not half that amount, and the emoluments of the latter appointment are as yet unknown.

The medical officer is also vaccinator for the locality, and is required to vaccinate every one who wishes to come. For each patient his fee of 1s. is paid along with his salary by the guardians, and the sum total of these fees varies, according to the populousness of the district, from £2 to £50, an average for the provinces being about £5. Despite the miserable salary, and the very many discomforts of dispensary life, these appointments are generally eagerly sought for—firstly, because they afford the new comer a certain, though hardly-earned salary, to supplement his private earnings; and, secondly, because, if not secured by the new comer, they would of necessity bring a competitor for practice into the field, and inasmuch as private income is of far greater import than public earnings, country medical practitioners are obliged to undertake the public duty in order to save to themselves the monopoly of their private emoluments.

##### APPOINTMENT.

The qualifications required by the Poor-law Commissioners are a Licence in Surgery or a Diploma in Medicine, and a Diploma in Midwifery; the candidate must also be twenty-three years of age.

The appointment lies with the Dispensary Committee, who elect by vote. As politics and religious feeling run high in Ireland, these elements enter into the election of Poor-law medical officers. Family interest also possesses great weight.

The candidate will do well to bear these facts in mind, as his personal attendance on the day of election will be required, and whatever other qualification he may have, he will then find that his compatibility in these respects with the majority of the committee is essential; and, accordingly, he had better first make himself acquainted with the local peculiarity, whatever it may be, before he enters on his candidature, otherwise, in all probability, any expenditure that he may make in the matter will be simply thrown away. We may here observe also, that in very many instances the appointment is virtually made before the advertisement appears for a medical officer, in which case also candidates are put to unnecessary trouble and expense under false pretences.

##### CONTROL.

Each district is under the direct control of a committee composed of the neighbouring landholders, the appointment of medical and other officers is made by this committee, and the entire management of the district is under their control. Their acts are, however, subject to the approval of the Local Government Board, who have the power either of interposing their veto on any appointment, or even of expelling an officer by a "sealed order," without trial or accusation, or without the resource of appeal or investigation. This salary is paid by the Board of Guardians, and no increase can be made in the amount without their assent and that of the Local Government Board. Under the late Sanitary Act the committee may recompense the medical officer for special services, such as those during an epidemic of cholera, or for sanitary reports. The number of unions in Ireland is 163, to each of which is attached a medical officer, who is appointed and controlled by the Board of Guardians in the same manner as the dispensary surgeon is by his committee. The salary is usually better than that of the dispensary doctor, and the duties of a more easy and satisfactory description, inasmuch as the duty is confined to daily attendance at the workhouse hospital, and no night visits out of doors or any long journeys across the country are involved.

## DUTIES.

The duty of the dispensary doctor is twofold. He is to attend his dispensary on a given day or days in the week. Frequently there are two dispensaries in the district, separated from each other by several miles, and he will have perhaps to attend two days a week. He has also to visit at any hour of the day or night a sick person for whose relief a visiting-ticket has been issued by a member of the committee or by the relieving officer, and to continue his attendance as often as may be necessary until a termination of the case. Moreover, he has a great many registry books to keep, and a multitude of returns to make, and in the majority of districts he has to make up all the medicines for the poor.

The pressure of these duties is in the greatest degree dependent on the good will of the members of his committee. If the medical man be a favourite with his masters they will give him very little trouble with "scarlet runners," as the visiting tickets are, from the colour of the paper on which they are printed, humorously called, and will be unwilling to trouble him even with cases deserving of personal attendance.

If, on the other hand, it is his misfortune to come in contact with some of the half-bred committee-men, who know nothing of the treatment fit for an educated gentleman, or cherish a personal spite, the discharge of his duties may become simply unbearable. He may be peremptorily summoned, in any weather, at any hour, and to any distance, to a case which he may probably find to be altogether trivial, or to a person whom he may know to be perfectly well able to pay—aye! even the committee-man's own brother or daughter.

## SUPERANNUATION.

By a recent Act of Parliament a Poor-law medical officer may now receive a pension not exceeding two-thirds of his salary on being incapacitated, from illness or old age. This grant is strictly at the discretion of the guardians; nevertheless, it has been given in most cases in which physical incapacity has been clearly proved. It is, however, at best a miserable resource, and can by no means be calculated upon as a provision for old age. There are now 65 ex-medical officers receiving superannuation allowance whose average term of service before pension was 20 years, and whose average allowance is £64 15s. Their average age at retirement was 63. All official information may be obtained of B. Banks, Esq., Local Government Board, Custom House, Dublin.

Complete information as to fees, emoluments, duties, and appointment of Irish Poor-law medical officers will be found in the "Irish Medical Directory" for 1874.

## SURGEONCIES IN THE MERCANTILE MARINE.

THE appointment of surgeon in sea-going vessels is much sought after by young surgeons who are desirous of seeing a little more of the world than school, college, or home have shown them; but the office is seldom held for more than a few years. These appointments are almost uniformly in the gift of directors and secretaries of companies, and of the owners themselves, with whom, as may be believed, personal influences are a better recommendation than any professional qualification.

The Cunard and other American mail lines select their surgeons through the interest of owners and managers. The English ships are bound to carry English medical officers, and American ships American surgeons. The pay varies from

ten guineas per month upwards, and the arrangement may be terminated by the surgeon at any time that the ship is laid up, unless he has signed special articles.

The West India Mail Service admits candidates only between the ages of twenty-two and forty. A regular curriculum similar to that required by the licensing bodies is necessary, and a special examination in climatic disease is sometimes administered to the candidate. At entry, surgeons are requested to join vessels in the West Indies or Brazils, relieving surgeons longest out, and being themselves relieved in turn.

## EMIGRATION SERVICE.

THE Emigration Commissioners are now reducing their staff, and making no appointments to vacancies as they occur. Many of the trading ships which carry emigrants to New Zealand and Australia take surgeons only on their outward voyage, and call at China for silks and other freight on their way home. Surgeons to these vessels are paid only £25, and, finding it impossible to obtain a passage home again, are compelled to settle in the colonies, which are accordingly over-stocked.

## EUROPEAN COMMUNITIES.

THERE is a growing demand for surgeons for small European colonies, and several desirable appointments have been recently made. A number of colonists feeling the want of efficient medical advice subscribe an annual guarantee salary of from £200 to £800, allowing the appointed candidate to make what fees he can by private practice in addition. Candidates in all cases are required to speak French, and a knowledge of German is generally necessary.

## NEW AUSTRALIAN SETTLEMENTS.

UNDER the late Land Settlements Acts of the Australian colonies, a great impulse has been given to the opening of new districts, which require the services of competent surgeons. The chief agent through whom these arrangements have been carried out is Mr. Thomas W. Powell, of Clare, with whom the representatives of the settlers communicate. Mr. Powell conducts his English business through Dr. Baxter Langley, of London. The usual arrangement is based upon a guarantee of £200 a year, with horse, and free quarters for three years, with freedom to practise. These appointments are worthy the attention of those who do not object to colonial life, an income of £1000 a year being readily made by a steady, well-qualified young man.

## The Student's Life, Education, and Qualifications.

## THE GENERAL MEDICAL COUNCIL.

## REGISTRATION OF STUDENTS.

To this body is entrusted the supervision of Medical Education, and it has made a number of recommendations, the majority of which have been accepted by all the Examining Bodies, and are, consequently, found in their regulations. The student has, therefore, nothing to do

with the Council, except that he must take care to be duly registered as a Student of Medicine, *at the commencement of his career*, at the offices, 315 Oxford Street, London, in Dublin, or in Edinburgh. He must previously have passed a preliminary *Arts Examination*. In order to effect this, each student should apply according to a form accompanied by a certificate of his having passed such examination, the same to be lodged with the Registrar, who will thereupon enter the name in the Students' Register, and issue a certificate to that effect.

The intention of this registration is to ensure that the student shall occupy four years in medical study, which is, theoretically, the period which must be devoted to his education before his entry to the profession. In England this requirement is frequently satisfied by a nominal service for the first year under a general practitioner, or in a provincial hospital or dispensary, and the actual period of medical study is often really three years.

In Ireland the majority of the licensing bodies do not insist on the passing of Arts Examination before registration, nor do they insist on four years' study from any fixed date. Generally speaking, the student's name is forwarded to the Registrar of the Branch Council by the public officer of his school, and therefore he gives himself no trouble about it, and, as the duty is very irregularly performed, the Register of Students for Ireland is very imperfect, and wholly unreliable.

#### REGISTRATION OF PRACTITIONERS.

All duly qualified Physicians, Surgeons, Medical Graduates, and Apothecaries are required by the Medical Act 21 and 22 Vic, c. 90, to be registered before they can hold any public medical or surgical appointment, or issue valid medical certificates.

The medical registration of any practitioner may be effected, on application, in writing (according to a form to be had at either of the Branch Offices or in London), and producing, or transmitting with such requisition the *Diplomas* to be registered, and also paying or remitting the fee, which is regulated by the Medical Council, viz., £5 for first registration, and 5s. for every qualification which may be subsequently added. Each practitioner is entitled to receive a copy of the official Medical Register free on application.

#### THE CAREER OF THE ENGLISH MEDICAL STUDENT.

SEVERAL courses are open to the young gentleman who has decided to enter the medical profession in England, whether he fulfil his curriculum in London or in the provinces. As the latter course is generally determined by local causes, we will first of all point out a few things that concern both London and provincial medical students.

#### APPRENTICESHIP.

The Society of Apothecaries, hitherto fettered by Act of Parliament, required an apprenticeship. The apprentice was, however, of late years allowed to fulfil part or all of his curriculum during his apprenticeship, and under the Act passed last session we presume the apprenticeship system will gradually pass away. The apprenticeship system, when carried out in a liberal manner, was not

without its advantages. In the early part of his pupilage the apprentice not only learned practical pharmacy, and became acquainted with the more generally used articles of the *materia medica*, but was often assisted in preparing for the preliminary examinations. Moreover, he prepared himself to take, should he ever wish to do so, the post of assistant to a general practitioner, as the experience he had thus acquired would procure him a situation in preference to prizes, gold medals, and even university distinctions. Again, this experience was of the very highest value on settling in general practice.

#### PUPILSHIP.

Supposing that the plan of apprenticeship be rejected, a young man can instead become the *pupil* of some one in practice. This is frequently done by those who aim at the higher branches of practice. An experienced practitioner, whether a physician or surgeon, who will superintend or direct a pupil's studies, offers great advantages, and we think that those who can afford a pupilship will not regret the expense of providing themselves with such a guide.

#### THE PRELIMINARY EXAMINATION.

We would remind the student that some preliminary examination in arts, which is recognised by the General Medical Council, *must* be passed by him *before* entering a hospital. The subjects must include Latin and mathematics. There are numerous preliminary examinations, of which a list may be obtained. For the *English Medical Student* we should say that, *ceteris paribus*, the Matriculation Examination of the London University is the best. We do not deny that it is more severe than most or all of the other preliminary examinations, but, nevertheless, we would recommend those who have sufficient ability and the time to prepare for it, to matriculate, as they will thereby be enabled hereafter, if they should desire so to do, to present themselves for examination for the degrees in Medicine or Surgery conferred by this University. It is also accepted by the College of Surgeons in lieu of the arts examination otherwise imposed on candidates for its Fellowship.

Should circumstances deter the student from offering himself for the matriculation, he will find an easier standard in one or other of the preliminary examinations for the Fellowship or Membership of the Royal College of Surgeons of England, or that of the Society of Apothecaries. Full information with regard to the dates and subjects of examination, or the list of examinations recognised by these bodies, may be obtained from the Secretary to the College of Surgeons, Lincoln's Inn Fields, or from the Beadle at Apothecaries' Hall, Bridge Street, Blackfriars.

As soon as the preliminary examination has been passed, or, at any rate, before commencing hospital study, it will be necessary for the student to register at the Medical Council, as the commencement of the course of professional study will not be recognised by any of the qualifying bodies as dating earlier than fifteen days before the time of registration.

#### HOSPITAL STUDY.

A pupil may enter at any of the London Hospitals without having passed through either a pupilship or an apprenticeship. Provided he has passed a preliminary examination, he has only to pay his fees and hear the

Introductory Lecture on the 1st of October, when he is admitted at once to all the privileges of a medical student. He should decide on the diplomas he requires, and guide his studies accordingly. Most schools have now a composition fee, entitling to all lectures and practice required for the ordinary qualifications in medicine and surgery. They also mostly have another sum, very little higher, entitling the student to *perpetual* attendance on all lectures and hospital practice. It is best to take the perpetual ticket, as all contingencies are thereby provided for. The fees are generally payable in instalments, at the commencement of each winter session. The Dean will always forward details as well as any special information which a student may need.

#### RESIDENCE.

The student who comes to London to fulfil his curriculum at a metropolitan school, generally requires lodgings, unless he can live with relatives or friends, which is of course better. Comfortable furnished apartments are to be had in respectable streets near all the hospitals. Two brothers or two friends can, of course, do this a little less expensively than one. The price varies with the season and the quality of the rooms. It should be mentioned that one or two of the Medical Schools (St. Bartholomew's, University College, King's College) have collegiate institutions in connection with them, where rooms may be had instead of taking lodgings. At many schools, also, some of the lecturers receive pupils. Special information on this subject may be had on application to the Dean or any of the lecturers.

#### PRIZES AND SCHOLARSHIPS.

As to contending for prizes, there are differences of opinion. Diligent attendance on the classes and in the wards will enable the student to store his mind with knowledge fitting him for his profession, and this should be his first aim. Gold and silver medals are honourable distinctions, but only secondary ones. Still, we would not discourage those intending to compete. It should be remembered by all students that the true end and aim of their studies should be to make them good doctors. They should study diligently to make themselves such, and there can be no reasonable objection to their striving for, in addition, an extra good standard in any subject or subjects in which they feel they are qualified to obtain it. In so far as prizes and scholarships encourage the study of particular branches there can be no objection to them. Nearly every student excels in some subjects more than others, and a prize is an additional incentive to arduous but otherwise unrequited studies. The only danger is that they should become too special, and encourage one branch of study at the expense of the others. Students have often failed at examinations where the number of subjects was numerous through giving undue attention to some favourite branch of study.

Competition for appointments to dresserships and other offices, where much practice is seen, stands on a different footing. No prizes can equal such posts; and the possibility of getting them should influence largely the choice of a school. In some schools they must be paid for. In others the diligent gain them without extra expense. The student having selected his hospital and school, has chosen

his teachers. We have only to remind him that, however able they may be, the result depends chiefly on his own application.

#### CURRICULA AND QUALIFICATIONS.

As to these, the information most valuable to students may be divided into two parts:—

I. The regulations with which they must comply before they can present themselves for examination to any of the licensing bodies.

II. The means that exist to enable them to do so. In the first division are to be placed the regulations of the corporations; in the second, some account of the many schools of medicine and hospitals where professional education can be pursued. A natural supplement to this information is a brief sketch of the career open to young men after they have obtained their diplomas, especially in the public services.

In accordance with this plan, we proceed to consider—first, the Regulations of the Qualifying Bodies. These may also be divided into two classes—I. The Universities; II. The Corporations.

#### THE UNIVERSITIES.

##### OXFORD AND CAMBRIDGE.

The older English Universities have lately opened their doors much wider than hitherto, without, however, losing any of their prestige. Those who propose to follow their course of education need not any longer enter at any particular college or hall, though it will be most probably long before lodger students become numerous. There are advantages in a collegiate life that will not willingly be given up by those who can afford it.

##### THE LONDON UNIVERSITY.

For those who would not like or cannot afford to enter a college, it is perhaps preferable to graduate at the University of London. The medical degrees of this University have now obtained a reputation second to none. No student can therefore propose to himself a higher qualification. The training is rather longer than is required for the diplomas of most corporations. The examinations are very stringent, but in after years the student will feel the gratification of having obtained such a degree. Every student is required to go through the full course of hospital studies *after* he has passed the matriculation examination. It is therefore very important that he should matriculate before entering a medical school, otherwise he will be compelled to stay more than four years at a hospital, as the University regulations require four years of hospital study and attendance on lectures *after matriculation*. It is therefore desirable he should matriculate before entering a medical school. The matriculation examination of this University is accepted as a preliminary by the Medical Council, and therefore the labour bestowed in preparation will serve the student's purpose even if he do not proceed to a degree.

We should also strongly recommend those students who intend to graduate at the London University to so arrange their studies as to pass [the preliminary scientific examination *before commencing their regular medical studies*, taking a preliminary year for the purpose of preparation. In this way much knowledge will be gained which will go to clear the way for his first year's studies which would otherwise be much encumbered. The medical degrees of the University are Bachelor and Doctor of Medicine, and Bachelor and Master in Surgery. Degrees in science are also now obtainable. There are at each stage of the graduate's career examinations for honours, which afford the student the opportunity of gaining highly-prized distinctions in various branches. There are

prizes, exhibitions, and scholarships for the most successful.

#### UNIVERSITY OF DURHAM.

The degrees of Bachelor and Doctor of Medicine are granted by this University, as is also the degree of Master of Surgery, generally when candidates present themselves, but this does not often occur. There is also a Licence in Medicine, for which residence is not essential.

From the Universities we pass to the other bodies that are empowered to give authority to practise.

#### THE CORPORATIONS.

##### THE ROYAL COLLEGE OF PHYSICIANS OF LONDON.

**THE FELLOWSHIP.**—The Fellowship of this College is attainable only by election, and no one can be proposed who is not a member of at least four years' standing.

**THE MEMBERSHIP.**—A person may become a Member of this College without holding a degree in Medicine, or indeed, any diploma. This is not very often done; for the Membership gives no right to the use of the title Doctor, though some Members not possessed of a degree style themselves so. This is, however, a direct violation of the rules of the College, to which a member pledges himself on admission. The curriculum extends over four years.

Graduates in Medicine of any *British* University are admitted to an examination for the Membership. Such graduates are exempt from some parts of the examination—*e.g.*, anatomy and physiology. Even foreign graduates of accredited universities have no difficulty in being admitted to examination.

**THE LICENCE.**—This diploma authorises the holder to practise his profession as a Licentiate of the College. Unless a graduate of some University, he is forbidden to use the title of doctor, but we regret to say many do so. It was regarded at first as a diploma for the general practitioner, intended to supersede that of the Apothecaries' Company. The examination is conducted by specially appointed examiners, and is complete in the several departments. The following by-law was enacted on August 4, 1874:—

"Every candidate for the College Licence who shall commence his professional study on or after the 1st day of October, 1874, will be required to produce satisfactory evidence of having completed the course of study in accordance with the by-laws and regulations of the College, and to pass the professional examinations conducted by the Conjoint Examining Board."

The by-laws to which this refers can be obtained on application to the Registrar at the College.

Nearly seven years ago the most important change occurred that has ever taken place in reference to the qualifications of general practitioners. This licence of the London College of Physicians was then recognised by the Poor-law Board as a qualification *in surgery as well as medicine*. Consequently, this single diploma is sufficient to enable anyone to take a Poor-law appointment. Any one contented with the diploma of L.R.C.P. Lond. would thus have all he needed as a legal qualification.

##### ROYAL COLLEGE OF SURGEONS OF ENGLAND.

No College has exercised more influence over the profession than this. Without M.R.C.S it is not easy to obtain any English surgical appointment. Its membership, although no longer essential, yet carries great weight in a parish appointment. For this reason most English students take this diploma, which, together with a medical qualification, suffices for every purpose of the general practitioner. The College gives three diplomas, the Membership, Fellowship, and a diploma in Midwifery, which last is, however, mostly confined to those who are already members.

**THE MEMBERSHIP.**—This diploma gives no vote in the affairs of the College. It is only a licence to practise, and corresponds with the licentiatehip of the Edinburgh and Dublin Colleges.

In future, candidates for the diploma will be examined in the Practice of *Medicine*, and also in the practical employment of splints, bandages, and other surgical appliances. There are now two examinations for the Membership, the Primary and the Pass.

**THE FELLOWSHIP.**—Members of long standing can be admitted by election. As, however, this grade is also to be obtained by examination, which is preferred by many, as of greater value, this is the usual manner of taking the F.R.C.S.

A Member of the College of eight years' standing is admitted to examination on producing a certificate signed by three Fellows to the effect that he has been engaged in the Practice of Surgery for eight years, and is a fit and proper person to be admitted a Fellow.

Few consulting surgeons in England are without the Fellowship, and in most of the London hospitals appointments are unattainable without it.

##### APOTHECARIES' SOCIETY OF LONDON.

The Licence of the Worshipful Society of Apothecaries is perhaps the most useful medical diploma for the general practitioner in England. The monopoly enjoyed by this body for many years, in this respect, is not easily to be disturbed. The laws of many institutions require their medical officers to hold this diploma, and these laws are not readily altered. Though other medical qualifications are recognised by the Poor-law Board, there is no doubt that the guardians throughout the country—and they elect the medical officers—are familiar with the diploma of the Apothecaries' Society, and it is to them more of a guarantee than other qualifications of which they are ignorant. Everyone, therefore, who can show this certificate, intending to settle in *England* as a general practitioner—even if he take other diplomas—would probably consult his own interest by becoming a Licentiate of the Apothecaries' Society; and as the fee is only six guineas, a very large number of young men will, no doubt, secure this avenue to appointments.

In entering a School of Medicine, application is to be made to the Dean. In London the fees range from 80 to 100 guineas for the course of study required for the ordinary diplomas. The sum, if paid at once, is less than if paid in two or three instalments. From 40 to 50 guineas at the commencement of each of the two first years is an ordinary arrangement, the remainder being paid on entering the third winter. There is a tendency to slightly increase the fees in consequence of the improvements in schools and the additional requirements of the Examining Boards, but the amount does not differ sufficiently to make it of importance in the choice of a school.

#### NOTES ON THE HOSPITALS AND MEDICAL SCHOOLS IN LONDON;

CHIEFLY IN REFERENCE TO THE PRIZES, SCHOLARSHIPS, AND APPOINTMENTS OPEN TO STUDENTS.

##### ST. BARTHOLOMEW'S HOSPITAL.

H.R.H. THE PRINCE OF WALES is the President of this hospital, which receives within its walls upwards of 6,000 in-patients annually, and its out-patients and casualties amount to more than 144,000 annually. The staff at this ancient and popular institution is decidedly second to none. The Clinical Practice comprises a service of 710 beds, of which 322 are allotted to surgical cases, 227 to medical cases, 26 to diseases of the eye, 20 to diseases of women, and 81 to syphilitic diseases, while 34 are for convalescents at Highgate. Four house physicians and four house surgeons are appointed annually. The fee for these appointments is only nominal. The midwifery assistants, the ophthalmic house-surgeons, the clinical clerks, and the out-patient clerks and dressers are ap-



pointed, without fee, from among the diligent students. Sixteen free in-patient dresserships are awarded annually; other dresserships may be obtained on payment of the usual fees.

Accommodation is provided for residence of students in the college connected with the institution, for which an entrance fee of £2 2s. is required. By applying to the resident warden, Dr. Moore, students may obtain information respecting rooms in the college, or will be advised respecting residence out of the hospital.

In addition to the many valuable prizes and scholarships open to students at this institution, a new scholarship in science was founded last year of the value of £100, tenable for one year. The subjects for examination are Physics, Chemistry, Botany, and Zoology.

#### CHARING CROSS HOSPITAL.

This hospital, though at present one of the smaller ones, derives from its situation great advantages. It is in one of the most central positions in London, where there is constant communication with every part. When the present extensive alterations are completed 200 beds will be at the disposal of the staff, which, at the present time, reckons several names of eminence. In connection with it the practice of the Royal Westminster Ophthalmic Hospital, close by, containing 36 beds, affords an excellent opportunity for the study of that branch of the profession. Other special departments have been established, and the authorities have had the courage to establish them on a liberal basis, the hospital staff not monopolising them. The following scholarships are open to students: Two entrance scholarships, of the value of £30 and £20 respectively, tenable for one year, are awarded annually. Two scholarships are open for competition to matriculated students—the Llewellyn Scholarship of £25, for those who have just completed their second year; and the Golding Scholarship of £15, for those who have just completed their first year. The Governors' Clinical gold medal, and silver and bronze medals in all classes are awarded annually.

#### ST. GEORGE'S HOSPITAL.

One great advantage of this school is its unrivalled position, at the corner of Hyde Park, one of the most salubrious parts of the metropolis. Students can easily find lodgings within half an hour's pleasant walk. It is perhaps the most aristocratic of the London schools, and the present staff maintain their position as worthy successors of Hunter, Brodie, and other worthies who formerly taught in it. For some time past the authorities being aware of the insanitary state of the building, and the absolute need of improvement in which many portions of it stood, resolved to close its doors for about two months, and to have the interior arrangements remodelled after the present scientific method of conversion. This being satisfactorily attained, the hospital was reopened on the 9th inst. for the reception of patients, to the no small gratification of the governors and staff, who are to be congratulated upon their wisdom and energy in taking the initiative and carrying through so great an undertaking. Indeed, second year's students will hardly recognise its inner life when they re-enter on the 1st prox.

The hospital contains 350 beds—200 for surgical, and 150 for medical cases. There are special wards for diseases of the eye, diseases of women, &c. In addition to the ordinary curriculum, there are separate courses of lectures on ophthalmic, aural, dental, and orthopedic surgery, and on psychological medicine.

Upon payment of a compounding fee of 100 guineas, gentlemen may become perpetual pupils of the hospital. Perpetual pupils enjoy certain privileges in the matter of appointments, &c. The prizes, appointments, and scholarships open to students in this hospital are exceedingly numerous and valuable.

#### GUY'S HOSPITAL

This old favourite borough school still attracts the lion's share of students. It has long been one of the most popular in the metropolis, and still keeps up its renown. In special departments, Guy's is the most advanced. This hospital set the example of giving the appointments to its special departments to gentlemen not on the general staff.

Guy's is situated close to the London Bridge Railways, hence great facilities for getting to any part of London or the country. It is quite practicable for students to reside a little distance down either of the lines that converge at this point, and thus enjoy the benefit of country air during their hospital career. For those who wish to live close to the hospital, lodgings are to be had at a moderate price,

Every facility and encouragement is given to students to examine and study for themselves at the bedside, and they have opportunities of becoming clinical ward clerks to the physicians and surgeons, as well as dressers to the assistant-surgeons and dressers in the surgery. The house-physicians and house-surgeons are appointed directly by the treasurer. All the other appointments are made by the treasurer upon the recommendation of the Medical Council. Mr. Stocker will supply every information as to the many appointments, scholarships, and prizes open to students either before or after entrance.

#### KING'S COLLEGE.

This College gives instruction in all the faculties, and has a theological department. It was established by Church of England persons, in opposition to University College, which is a non-sectarian institution. King's, then, is the Church of England College. The College is situated close to Somerset House, in the Strand, having a frontage on the new Thames Embankment, within a few minutes' walk of several railway stations. A new wing, one storey high, in a similar style of architecture with Somerset House, and fronting the Thames Embankment, is being rapidly pushed forward, the dissecting-room and laboratory are being considerably enlarged, and new consulting-rooms and offices erected. The students' rooms are undergoing alteration and improvement, and a new and commodious drawing school is in course of construction. It is expected that the whole will be completed in time for the winter session. There is a junior school in connection with this college, to prepare boys to enter the college at a proper age. The hospital is only a short distance from the college, at the back of the Royal College of Surgeons, and although smaller than some of the London hospitals, the renown of its staff has always kept up its reputation, so that the King's is one of the most popular of the medical educational institutions in London.

#### THE LONDON HOSPITAL AND COLLEGE.

The Medical College of the London Hospital has been greatly enlarged, and is now very complete, lectures and demonstrations being given in all subjects required by the medical examining boards. In the new buildings the museum has been more than doubled in size, and a physiological and histological laboratory has been erected and amply furnished with microscopes and all needful appliances. Pathology is also systematically and practically taught in this school. The college, therefore, worthily supplements the great East-end hospital, which has long been famed as one of the finest fields of practical study. There are now a large number of scholarships and prizes of considerable value, but more important still to studious men, all the numerous appointments in the wards are open to pupils without extra payment, and it is almost impossible to exaggerate the value of the dresserships, clerkships, house-surgeons, house physicians, and other residential positions in a hospital of the first magnitude, where the staff take great interest in the development of its educational resources. A new wing will shortly be opened, raising the number of beds to 800.

#### ST. MARY'S HOSPITAL.

There is a medical school in connection with this hospital, which is located at Paddington, in close proximity to the Great Western Terminus. A Maternity Department is attached to the hospital. There are special departments for diseases of the eye, the ear, the skin, and the throat, in which clinical demonstrations are constantly given by the physicians and surgeons in charge of them. Students with slender purses will find the neighbourhood of the hospital a moderate one as regards lodgings, and easy of access by omnibus and the Underground Railway from all parts of London. Three resident medical officers are appointed for twelve months, and an obstetric officer for six months, who board free of expense in the hospital. A resident registrar is also appointed from amongst the students, with a salary of £100 a year. These appointments are awarded after competition, without additional fee. There are several scholarships, full particulars of which may be obtained of Dr. Shepherd.

#### MIDDLESEX HOSPITAL.

The school attached to this hospital is not a large one, but its pupils have passed the colleges in much greater proportion than some of the larger ones, thereby reflecting credit upon the staff attached. There is a special department for cancer cases, affording accommodation for thirty-three in-patients,



whose period of residence in the hospital is unlimited. Wards are also appropriated for the reception of cases of uterine disease and of syphilis, and beds are set apart for patients suffering from diseases of the eye.

Special attention is bestowed on the clinical instruction of the students both in the wards and out-patients' rooms. Three clinical prizes, including the governor's prize of twenty guineas, are annually awarded to those students who pass the most satisfactory examination at the bedside, and in the post-mortem room. Class prizes are given, and six resident clinical appointments are annually awarded after competitive examination, to students who have completed their education and complied with the regulations of the school. The officers thus appointed reside and board in the hospital free of expense.

#### ST. THOMAS'S HOSPITAL.

This magnificent building, or rather series of buildings, is situated at the foot of Westminster Bridge, on the south bank of the Thames, facing the Houses of Parliament. From its proximity to some of the largest factories in London, it affords scope for surgical practice from accidents second to none, whilst amongst the members of its staff are names of European reputation in medicine and science.

There is accommodation for residence and free maintenance in the college-house for the two house-surgeons, resident accoucheurs, one dresser, one obstetric clerk and assistant obstetric clerk, which appointments are awarded by competition. There are many prizes and scholarships.

The admission fee to practice and all the lectures is £40 for the first year, a similar sum for the second, £20 for the third, and £10 for each succeeding year, or £105 at one payment for unlimited attendance. Special entries may be made to any course of lectures or to the hospital practice; and a modified scale of fees is arranged for students entering in their second, third, or any subsequent year. Fee for general subjects required for students of dental surgery for two years, £45, or by instalments of £40 for the first year and £10 for the second year. All students have the opportunity afforded them of being engaged in the performance of practical duties in connection with the medical, surgical, obstetrical, ophthalmic, and pathological departments in the hospital. There is the Tite Scholarship, value £30 for three years. Three prizes for first year's students, at the end of both winter and summer sessions, of the aggregate value of £70, besides various medals and prizes open to students of any year.

#### WESTMINSTER HOSPITAL.

This is near the Abbey and the Houses of Parliament, upon one of the finest sites, and with convenience for locomotion and recreation equal to any other in the metropolis. It is well appointed in every respect, and one of the most moderate in respect to fees. It contains 191 beds, and received, during the past year, 1,802 in-patients and 19,422 out-patients. There are separate departments for diseases of the eye, diseases of the ear, diseases of the skin, diseases of the teeth, and diseases peculiar to women. In addition to the practice of the hospital, pupils who enter for the whole period of medical education are permitted to attend, without further fee, the practice of the Royal Westminster Ophthalmic Hospital, and that of the National Hospital for Paralysis. The whole course of study for the usual examinations may be here completed for £80, payable in two instalments. The perpetual fee is only eighty guineas, or £78 in one sum on entrance. Resident appointments, clerkships, and dresser-ships, are all conferred without extra payments. Suitable lodgings may be obtained in the neighbourhood, and at not more than a quarter of an hour's walk from the hospital. Some of the staff take pupils to reside with them.

#### UNIVERSITY COLLEGE AND HOSPITAL.

Few colleges in London have of late years been so successful as this, both in its annually increasing number of students and the number of them who subsequently pass their several colleges on first presentation. On its staff are names of considerable eminence, and from its central and healthy position everything is in its favour. The College, which is situated in Gower Street, about 100 yards from the hospital, gives instruction in every department of science, and specially prepares students for degrees in all the faculties at the University of London. There is, however, no theological faculty, the College, like the University with which it is in intimate connection, being founded on the non-sectarian principle. There

is also a faculty of science. University College School specially prepares boys to be ready at a proper age to enter the College. The scholarships and prizes open to Students in the Medical Faculty are probably as valuable as those attached to any other Medical School in the metropolis, Guy's and St. Bartholomew's excepted. There is the Surgical Fellowship, value £45 per annum for three years; the Physiological, value £70; Pathological Anatomy, £30; besides various other prizes and medals.

NOTE.—Where fuller information is required by the reader than that contained in the foregoing notes, it will generally be found on reference to our advertising columns, where also will be found the names of the staffs, lecturers, &c.

### DAYS AND HOURS OF THE INTRODUCTORY LECTURES

To be delivered at the different Metropolitan Schools.

Charing Cross Hospital—Dr. Douglas Powell—Oct. 1st, 4 p.m.  
St. George's Hospital—Dr. Dickinson—Oct. 1st, 4 p.m.  
Guy's Hospital—Sir Wm. Guil—Oct. 1st, 2 p.m.  
King's College—Prof. Ferriar—Oct. 1st, 4 p.m.  
London Hospital—Dr. Fenwick—Oct. 1st, 3 p.m.  
St. Mary's Hospital—Mr. Edmund Owen—Oct. 1st, 3.30 p.m.  
Middlesex Hospital—Mr. Andrew Clark—Oct. 1st, 3 p.m.  
St. Thomas's Hospital—Mr. MacCormac—Oct. 1st, 2 p.m.  
University College—Dr. Roberts—Oct. 1st, 3 p.m.  
Westminster Hospital—Dr. Potter—Oct. 1st, 8 p.m.  
Royal Veterinary College—Professor Tuson—Oct. 1st, 1 p.m.

### METROPOLITAN HOSPITALS TO WHICH NO MEDICAL SCHOOL IS ATTACHED,

The Practice being open to Students at the larger Hospitals.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park.—This is a large and important hospital at the East end, containing 164 beds. Consulting Physicians: Drs. T. B. Peacock, J. Risdon Bennett, E. Lloyd Rickett. Consulting Surgeon: Mr. John Hilton, F.R.S. Physicians: Drs. S. H. Ward, J. Andrew, J. C. Thorowgood, H. G. Sutton. Assistant-Physicians: Drs. A. Shepherd, Eustace Smith, W. H. Corfield, and J. B. Berkart.

EAST LONDON HOSPITAL FOR CHILDREN.—This institution, which contains 86 beds, has become quite inadequate to the requirements of the densely-populated district in which it is placed. Funds have been asked for, and largely subscribed for the erection of a more commodious building. Physicians: Drs. Barnes, Andrew Clark, J. M. Bruce, and Eustace Smith. Surgeons: Messrs. B. Shillitoe, A. Caesar, H. A. Reeves. House-Surgeons: Messrs. J. Magrath and J. Caesar. Secretary: Mr. Ashton Warner.

FEVER HOSPITAL, Islington.—260 beds. Physicians: Drs. Tweedie, Murchison, Broadbent, and Cayley. Consulting Surgeon: Mr. De Morgan.

GREAT NORTHERN HOSPITAL, Caledonian Road.—Physicians: Drs. Leared, Hardinge, Cholmeley, and Crucknell. Obstetric Physician: Dr. Gustavus C. P. Murray. Diseases of the Eye: Mr. B. J. Vernon. Surgeons: Messrs. Gay, W. Adams, T. Carr Jackson, and W. Spencer Watson. Aural Surgeon: Mr. Harvey. Dental Surgeon: Mr. C. J. Fox. Chloroformist: Mr. G. Eastes. House-Surgeon: Mr. A. Young.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—This is the largest institution for the treatment of affections of the chest in the United Kingdom, and contains 210 beds. Physicians: Drs. R. P. Cotton, K. Quain, J. E. Pollock, E. S. Thompson, C. T. Williams. Assistant-Physicians: Drs. R. D. Powell, J. Tatham, R. Thompson, Burney Yeo, F. Roberts. Three clinical assistants reside in the hospital for a period of six months. Pupils are admitted to the practice of the hospital. Terms, £8 8s. for three months; perpetual, £5 5s.

HOSPITAL FOR DISEASES OF THE THROAT, Golden Square, W.—This is the only institution in London for the special treatment of this class of disease. Consulting Physicians: Dr. Billing and Sir W. Jenner, Bart., M.D. Consulting Surgeon: Sir W. Ferguson, Bart. Physicians: Drs. Morell Mackenzie, Semple, and Prosser James. Surgeon: Mr. George Evans. Assistant-Surgeon: Mr. Pugin Thornton. Surgeon-Dentist: Mr. Oakley Coles.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street, Queen Square, W.C., and Cromwell House, Highgate.—Students are admitted to the practice of this hospital, the staff of which consists of—Physicians: Drs. West and Dickinson. Assistant-Physicians:

**Drs. Gee, W. B. Cheadle, O. Sturges, A. L. Galabin, and R. J. Lee.** Surgeons: Mr. T. Smith, Mr. F. Howard Marsh, and Mr. J. W. Howard. Surgeon Dentist: Mr. T. Edgelow. Fee for three months' attendance, £3 8s.; perpetual, £5 5s. Secretary: S. Whitford. There are now 65 beds in the hospital, Great Ormond Street, and 52 beds at the country branch; total, 117.

**HOSPITAL FOR STONE,** Berners Street, close to the Middlesex Hospital.—The practice is open free to hospital students. Mr. W. J. Coulson, F.R.C.S., and Mr. W. F. Teevan, B.A., F.R.C.S., are the surgeons.

**HOSPITAL FOR WOMEN,** Endell Street, St. Giles's, W.C.—Consulting Physician: Dr. Priestley. Consulting Surgeon: Sir William Fergusson, Bart. Physicians: Drs. Haywood Smith, Arthur Edis, and Wiltshire. This institution receives women only as midwifery pupils.

**LONDON SCHOOL OF DENTAL SURGERY,** Leicester Square.—This institution has been removed since last year from its old and inconvenient quarters in Soho to a much more commodious and attractive edifice. The meetings of the Odontological Society are also held here. In winter lectures are delivered on Mechanical Dentistry by Mr. J. S. Turner, on Wednesdays, at seven p.m.; on Metallurgy in Dentistry, by Mr. G. H. Makins, on Tuesdays and Fridays, at 6.30 p.m. In summer Mr. S. H. Cartwright lectures on Dental Surgery and Pathology, and Mr. C. S. Tomes on Dental Anatomy and Physiology. General fee for special lectures required for the curriculum, £15 15s. Fee for two years' practice at the Dental Hospital in connection with the above required by the curriculum, £15 15s.

**PHARMACEUTICAL SOCIETY OF GREAT BRITAIN,** Bloomsbury Square, London.—**SCHOOL OF PHARMACY.**—The session commences October 1st, and extends to the end of July. Lectures on Chemistry and Pharmacy will be delivered by Professor Redwood on Monday, Tuesday, and Wednesday, at nine a.m. Also lectures on Botany and Materia Medica, by Professor Bentley. On Friday and Saturday, at nine a.m., an additional course of Systematic and Practical Botany will be delivered at the Royal Botanic Gardens, Regent's Park, on Friday and Saturday, at nine a.m., commencing in May and ending in July. The Laboratory, under the direction of Professor Atfield, will be open from ten a.m. to five p.m. daily, excepting Saturdays, when it will be open from ten a.m. to two p.m. Students may enter at any period during the session.

**ROYAL FREE HOSPITAL,** Gray's Inn Road.—This hospital contains 102 beds. Of the smaller metropolitan hospitals few offer a more extensive field for students in medicine and surgery. Physicians: Dr. O'Connor, Dr. Cockle, and Dr. Rickards. Surgeons: Mr. Victor De Meric, Mr. Frederick Gant, Mr. John D. Hill. Secretary: Mr. J. S. Blyth, from whom full particulars of the dressships and clerkships may be obtained.

**ROYAL HOSPITAL FOR DISEASES OF THE CHEST,** City Road, E.C.—This hospital, although it treats nearly 6,000 out-patients annually, is at present only able to receive 12 in-patients. A new building is in contemplation, which will raise the number of beds to over 60. Consulting Physician: Herbert Davis. Physicians: Drs. Dobell, H. H. Crucknell, G. Goddard Rogers, and P. J. Hensley. Consulting Surgeon: Mr. J. Adams. Surgeon: Mr. Alfred Cooper. Resident Medical Officer: Mr. Henry Harris.

**ROYAL LONDON OPHTHALMIC HOSPITAL,** Bloomfield Street, Moorfields, E.C.—Founded 1804. 70 beds. Consulting Physician: Dr. F. J. Farre. Consulting Surgeon: Mr. J. Dixon. Surgeons: Messrs. Critchett, Bowman, Wordsworth, Streathfield, J. W. Hulke, G. Lawson, J. Hutchinson, J. Couper, and J. Soelberg Wells. House-Surgeon: Mr. Baller. Number of patients annually, about 20,000.

**ROYAL VETERINARY COLLEGE.**—Lectures, Clinical and Pathological Demonstrations, and General Instruction, are given on the Pathology of the Horse and other domesticated animals, including Epizootics, Parasites, and Parasitic Diseases; also on Anatomy, Physiology, Histology, Chemistry (General and Practical), Materia Medica, Toxicology, Botany, Therapeutics, and Pharmacy, Hospital Practice, Obstetrics, Operative Surgery, the Principles and Practice of Shoeing, &c. Students are required to attend one summer and two winter sessions at least before being eligible for the examination for the diploma of the Royal College of Veterinary Surgeons. Professor Simonds is the Principal.

**ROYAL WESTMINSTER OPHTHALMIC HOSPITAL,** King William Street, Charing Cross.—The hospital contains 36 beds, and the patients (10,000 annually) are seen and operations performed daily at one. The days of attendance of the surgical staff are Monday and Friday, Mr. Power and Mr. Rouse. Tuesday, Thursday, and Saturday, Mr. Hogg. Wednesday and Saturday, Mr. Cowell. The practice of the hospital is open to students. Fees, for six months, £3 8s.; perpetual, £5 5s. Students of the hospital are eligible for the post of House-Surgeon.

**SOUTH LONDON SCHOOL OF CHEMISTRY AND PHARMACY,** 325 Kennington Road, S.E.—Director, Dr. Muter. Lectures are delivered daily, at various hours, from nine till five, and the

laboratory is open for practical chemistry from ten till four. Special instruction in food analysis is given daily at the Public Laboratory, Kennington Cross.

**VICTORIA HOSPITAL FOR CHILDREN,** Queen's Road, Chelsea.—The hospital contains 50 beds, and has a large out-patient department. The practice is open daily at twelve. Fees, for six months, £3 8s.; perpetual, £5 5s. Physicians: Drs. Evans and Cavafy. Assistant-Physicians: Drs. Jones, Grigg, and Laking. Surgeon: Mr. Cowell. Assistant-Surgeons: Mr. F. Churchill and Mr. Roberts. Dental-Surgeon: Mr. Risdon. House-Surgeon and Pathologist: Mr. Peregrine.

**WEST LONDON HOSPITAL,** Hammersmith Road, W.—A well-appointed hospital, containing 68 beds. In-patients, 407. Out-patients, 20,240. Consulting Physician: Dr. Mandesley. Consulting Physician-Accoucheur: Dr. W. O. Priestly. Consulting Surgeons: Mr. S. A. Lane, Mr. William Bird. Physicians: Dr. Goddard Rogers, Dr. Thorowgood. Physician for Diseases of Women: Dr. Wiltshire. Surgeons: Mr. W. F. Teevan, Mr. Alfred Cooper. Surgeon for Diseases of the Eye: Mr. B. J. Vernon. Junior Physicians: Dr. Fish, Dr. Fothergill. Junior Surgeons: Mr. J. A. Bloxam, Mr. H. T. Butlin. Surgeon-Dentist: Mr. H. E. Sewill. Analytical Chemist: Mr. William Crookes, F.R.S. Resident Medical Officers: Two House-Surgeons, Apothecary. The practice of this hospital is open to all students and members of the medical profession. Gentlemen desirous of acting as clinical clerks or dressers can obtain all information by application to Mr. T. Alexander, at the hospital.

## ENGLISH PROVINCIAL MEDICAL SCHOOLS.

### BIRMINGHAM QUEEN'S COLLEGE.

THE Practices of the Queen's and general hospitals have been amalgamated for the purpose of Clinical Instruction under the direction of the Birmingham Clinical Board, by whose order all schedules are signed and all examinations conducted. The hospitals have a total of upwards of 400 beds. 4,500 in-patients and 45,000 out-patients are treated annually. Birmingham has the character of providing the most varied clinical instruction and practical operative surgery of all the provincial schools. Its staff is certainly of a very high order.

Practical Pharmacy is also taught in the dispensaries of the hospitals.

**Appointments.**—At the General Hospital—Resident Medical Assistant, Resident Surgical Assistant, two Resident Dressers, tenable for six months. At the Queen's Hospital—Resident Medical Assistant, Resident Surgical Assistant, Resident Obstetric Assistant, tenable for six months.

**Clinical Prizes.**—The following Prizes are given annually:—Senior Medical Prize, for Third and Fourth Year Students, First Prize, £6 6s., Second Prize, £4 4s.; Senior Surgical Prize, for Third and Fourth Year Students, First Prize, £6 6s., Second Prize, £4 4s.; Junior Medical Prize, for Second Year Students, First Prize, £5 5s., Second Prize, £3 3s.; Junior Surgical Prize, for Second Year Students, First Prize, £5 5s., Second Prize, £3 3s.; Midwifery Prize, £4 4s. The Examinations for all the Appointments and Prizes are conducted by the Clinical Board, and are open for competition to all students registered by the Clinical Board.

Fees for attendance for four years on the Medical and Surgical Practice, and on the Clinical Lectures at both Hospitals, £31 10s. One year's attendance, £15 15s.; six months' attendance, £10 10s.; special department, for Midwifery and Diseases of Women (optional), £2 2s.

**BRISTOL SCHOOL OF MEDICINE.**—The Bristol General Hospital attached to the School, in which there is ample scope for practice, contains 154 beds. The number of out-patients treated last year was over 13,000. The staff of lecturers is as follows:—Medicine, Drs. S. Martyn and W. H. Spencer. Surgery and Surgical Anatomy, Messrs. R. W. Ooe, R. W. Tibbits, E. C. Board, N. C. Dobson, H. M. Chute, A. E. A. Lawrence, and Hy. Waldo. Materia Medica is taught by Dr. G. F. Burder. Physiology by Messrs. G. F. Atchley and R. S. Smith. Midwifery by Dr. J. G. Swayne. Chemistry by Mr. Coomber.

Competitive Examinations are held amongst Students of the First, Second, and Third Years respectively, and Prizes of Money, Instruments, and Books are awarded annually.

The Certificates of this School are accepted by all the Examining Boards.

The General Perpetual Fee is 55 guineas.

Medical and Surgical Hospital Practice and Clinical Lectures are attended at the Royal Infirmary or at the General Hospital, at which institutions additional Prizes and Scholarships are annually offered for competition amongst the students. Arrangements are in progress for the establishment in Bristol of a College of Science and Literature, of which the existing Medical School will form a department.

**LEEDS SCHOOL OF MEDICINE.**—*Lecturers in the School:* Anatomy, Robert T. Land, M.D., John A. Nunneley, M.B., and E. Robinson. Physiology, C. J. Wright and John Horsfall, F.R.C.S. Medicine, John D. Heaton, M.D., F.R.C.P., T. C. Allbutt, M.A., M.D. Pathology, R. P. Oglesby. Surgery (including the Practical Course), Claudius G. Wheelhouse, F.R.C.S., T. Fridgin Teale, M.A., F.R.C.S., T. R. Jessop, F.R.C.S. Mental Diseases, J. Crichton Browne, M.D., F.R.S.E. Chemistry, T. Fairley, F.C.S. Materia Medica, John E. Eddison, M.D. Midwifery, W. Hall. Forensic Medicine, Thomas Scattergood. Botany, Edward Atkinson. Comparative Anatomy, T. C. Allbutt, M.A., M.D., and E. Atkinson. Demonstrations of Anatomy, R. P. Oglesby, Edmund Robinson, and A. F. McGill.

Clinical Lectures are given by the Physicians and Surgeons to the Infirmary.

Ophthalmoscopic Demonstrations and Demonstrations of Skin Diseases are given in the Infirmary by the Surgeons in each department.

Besides the Infirmary, there is a large Dispensary and a Fever Hospital, both of which are open to Students of the School.

**West Riding Lunatic Asylum, Wakefield.**—Dr. J. Crichton Browne, F.R.S.E., the Medical Director of the West Riding Lunatic Asylum, lectures on Mental Diseases during the Summer Session. The Systematic Lectures are given at the School, and the Clinical Lectures at the Asylum, which now accommodates 1,500 patients.

Special Prizes of the value of £10 each are given in the classes of Clinical Medicine, Clinical Surgery, and Forensic Medicine. Silver and Bronze Medals and Books are given in the Class Examinations.

Composition Fee, entitling to attendance upon all the required Courses of School Lectures, 44 guineas. The fees for attendance upon the Medical and Surgical Practice of the Hospital are 20 guineas each for three years, and proportionally less for single sessions. The fee for the Comparative Anatomy Course is not included in the Composition Fee.

**LIVERPOOL ROYAL INFIRMARY SCHOOL OF MEDICINE.**—Four Exhibitions, value £31 10s. each, consisting of free board and residence in the Royal Infirmary for six months, with dresserships, on award of the Medical Board. Six Dressers and Six Clinical Clerks are elected quarterly. Pupils of the Infirmary are admitted to learn Pharmacy in the dispensing department for six months.

*Fees.*—For six months' medical practice, 5 guineas; twelve months', 6 guineas. Surgical, 6 guineas for six months; 8 guineas for twelve months (this includes admission to the Practice of the Lock Hospital adjoining the Infirmary). Perpetual Medical and Surgical Practice, 32 guineas.

The hospital contains 300 beds, including wards, with 40 beds for the treatment of diseases of women.

**MANCHESTER—OWENS COLLEGE SCHOOL OF MEDICINE.**—This school, as most of our readers are aware, has resulted from the amalgamation of the Manchester Royal Infirmary School of Medicine with the Owens College, and occupies in the provinces a somewhat similar position to that of University College and Hospital in London. It has a Faculty of Science as well as of Medicine, with departments of Laws and Arts. Since the amalgamation a new Medical School has been built, on the most approved principles, at the western extremity of the College estate. On the ground floor are two large lecture theatres, a library, and a museum. Over the lecture theatres is a dissecting-room, and over the library a physiological laboratory.

The course of instruction afforded to students is most complete. Three of the most important chairs, those of anatomy, physiology, and chemistry, are held by professors who almost entirely devote their time to the work of instruction.

Students who may wish to engage in physiological or pathological researches will find opportunities for study in the complete and well-furnished physiological laboratory. Two valuable physiological scholarships are placed for competition in this branch as an incentive to original research.

*Fees.*—A Composition Fee, which may be paid in one sum of £48, or in two sums of £25 each at the commencement of the first and second years of studentship, admits to the whole of the Lectures required to qualify for the Examinations for Medical Degrees in the University of London, the Diplomas of the Royal College of Physicians, the Fellowship and Membership of the Royal College of Surgeons, and the Licence of the Apothecaries' Society.

The following is the staff of the College Medical Department:—

*Principal of the College.*—J. G. Greenwood, B.A.

*Director of Medical Studies.*—Professor Southam, F.R.C.S.

*Lecturers.*—General Anatomy and Physiology, William Smith, F.R.C.S. Practical Physiology and Histology, Arthur Gamgee, M.D., F.R.S. Practical Anatomy, J. B. Perrin, M.R.C.S. Comparative Anatomy, W. C. Williamson, F.R.S. Chemistry, Henry E. Roscoe, B.A., F.R.S., and C. Schorlemmer, F.R.S. Medicine, William Roberts, M.D., F.R.C.P., and J. E. Morgan, M.D., M.A. (Oxon.) Surgery, George Southam, F.R.C.S., and Edward Lund, F.R.C.S. General Pathology and Morbid Anatomy, Henry Simpson, M.D., and Julius Dreschfeld, M.D. Midwifery and Diseases of Women and Children, John Thorburn, M.D. Materia Medica and Therapeutics, Alexander Somers, M.R.C.S., and Daniel John Leech, M.B. (Lond.) Forensic Medicine, G. Morley Harrison, M.R.C.S. Ophthalmology, Thomas Windsor, M.R.C.S. Botany, Professor W. C. Williamson, F.R.S. Hygiene and Public Health, Arthur Ransome, M.D., M.A. (Cantab.)

**NEWCASTLE-ON-TYNE COLLEGE OF MEDICINE.**—The medical school here is not of a very extensive character, nor are its students numerous; still, for some of our readers it may be convenient to send their sons and we therefore give the following particulars:—

Hospital Practice is obtained at the Newcastle Infirmary, which has 230 beds, and in which the required Clinical Lectures are delivered. Number of patients last year, 16,696.

Four Resident Dressers are chosen from the senior students every six months. Fee, £10. Composition Fee to all the Lectures, 50 guineas.

*Medical Scholarships in the University.*—Four Scholarships of £25 a year, each tenable for four years by students residing in Durham or Newcastle, and not of sufficient standing to proceed to a Licence in Medicine.

**SHEFFIELD SCHOOL OF MEDICINE.**—Students at this College obtain excellent instructions in Medical and Surgical Practice at the General Infirmary, which contains 200 beds, and is provided with a Museum and Pathological and Post-Mortem Theatres.

The Fees for perpetual attendance are £15 15s. for Medical, and £21 for Surgical Practice; for 12 months' Medical and Surgical Practice, each £10 10s.; and for 6 months', £6 6s. each.

There is also the Sheffield Hospital and Dispensary, containing 99 beds, and the Hospital for Diseases of Women, to which students are admitted.

The Perpetual Fee for attendance on all the Lectures required by the Royal College of Surgeons and the Apothecaries' Hall is £42.

Prizes to the value of £30 and certificates of honour are given annually.

Some of the lecturers, and other local members of the profession, receive house pupils, which will be found far preferable to life in ordinary lodgings.

*NOTE.*—Our advertisement columns, of which an Index will be found at end, will in most of the above cases supply further information if required.

MR. MURRAY, B.A., Arkteon House, Wray Crescent, TOLLINGTON PARK, N., prepares gentlemen for the Preliminary Examinations at the Royal College of Surgeons and Apothecaries' Hall, and the Matriculation at the University of London.

## DAYS AND HOURS OF THE INTRODUCTORY LECTURES

*To be delivered at the different Provincial Schools.*

Durham University—Mr. J. Russel—Oct. 1st, 2 p.m.  
Queen's College, Birmingham—Dr. Alfred Hill—Oct. 1st, 3 p.m.  
Leeds School of Medicine—Mr. C. G. Wheelhouse—Oct. 1st, 4 p.m.  
Liverpool School of Medicine—Mr. Walker—Oct. 1st, 3 p.m.  
Manchester, Owen's College—Professor Huxley, F.R.S.—Oct. 2nd.  
Sheffield School of Medicine—Dr. J. C. Hall—Oct. 1st, 4 p.m.

## MEDICAL EDUCATION IN IRELAND.

## THE CAREER OF THE IRISH STUDENT.

The practice of the profession in Ireland, though not nearly as remunerative as in England, still affords a certain prospect to any medical man who is content with modest independence. Irish medical men pride themselves on holding a higher social position than the English general medical practitioner. They are entitled to meet the gentlemen of their locality on terms of equality, and it is not necessary or usual for them to endanger their prestige by the adoption of the trading or Christmas bill system which obtains elsewhere. In fact, what they lose in income they gain in rank.

In order to put the career of the Irish student as plainly as possible, we narrate the progress of an ideal person, from the day on which he takes his first step towards medicine to the hour of his issue from the cocoon of his studentship a fully-developed surgeon.

The parents and guardians of Master Robert Sawyer have, after much discussion, decided that he shall be a doctor. He has had a moderate amount of schooling, at least the very moderate amount which is essential for the medical preliminary examination, and his father is ready to expend about £130 on his medical education, that sum being divided over four years, or paid down in order to secure the advantage of a considerable saving.

## THE CHOICE OF UNIVERSITIES AND COLLEGES

will depend on various circumstances, and on the aspirations of Master Sawyer. If he is intended to make a fortune and enlighten his generation as a metropolitan practitioner, and if money and education are plenty, he will probably take University degrees in arts and in his profession. If the attainment of good professional rank on moderate terms be desired, the College of Surgeons and College of Physicians will serve every purpose. For University degrees it is to be remembered the student must undertake the prolonged study of classics and science in addition to his medical, surgical, and anatomical studies, and he will have to pay a considerable sum for this course of teaching, and, in the case of the Queen's University, to live for a certain period at the college where he studies. But if he is content to face the expense and labour he will enter the profession with all the prestige of an educated gentleman. In fact, the question whether he will or will not lay out for himself a University graduation in arts and medicine depends principally on whether he has money and time to give to it, and whether or not he means to practise in the metropolis. The Queen's University places at the disposal of the student a cheap University degree, and thereby attracts many applicants, but it is burdened by the necessity for the residence of the student for a time

at Galway, Cork, or Belfast, and, in the question of prestige, can hardly pretend to compete with the time-revered University of Dublin.

The Colleges of Surgeons and Physicians of Ireland confer qualifications which may stand well beside any in the United Kingdom, and as they do not require either residence or anything more than a single arts examination, they continue to be the licensing bodies for the rank and file of the profession in Ireland. If a student contemplates provincial practice—the army or navy—or a dispensary, he will most probably take the usual licences from the two Colleges. If he contemplates the lowly function of a country apothecary he *must* take the licence of the Dublin Apothecaries' Hall, which is in law equivalent to a medical degree. If he hopes to achieve a considerable private practice he will find it necessary to obtain other medical and surgical degrees.

## THE CHOICE OF SCHOOLS.

It must not be supposed that a student who intends taking a degree or diploma in any college must take his lectures in the school attached to that college, if there be one. On the contrary, with few exceptions, all certificates of attendance on lectures are interchangeable, and a student, no matter what medical school he may have studied in, will be admitted to any university or college. To this rule there is an exception. The Queen's University insists on certain courses being attended in one of the Queen's Colleges.

There is in some cases a sort of semi-official connection between certain colleges and hospitals, as between Trinity College and Sir Patrick Dun's, between the College of Surgeons and City of Dublin Hospital, and between the Catholic University and Mater Misericordiae Hospital; but this connection only exists because the professors of the college are in many instances officers of the hospital, and it confers no special immunity or privilege on the student of such hospital.

The choice of a school, hospital, or college having been made, Master—now *Mister*—Sawyer is perhaps sent to these to pass his

## PRELIMINARY EXAMINATION

in general education, but if he be either lazy or ignorant, he may adjourn that unpleasant process, *de die in diem*, until the eve of his final qualification as a surgeon, when, if he does so, he will find himself in possession of a mental muddle of Latin and physic. The preliminary examination is, however, not to be feared.

We strenuously advise the parents of the student to insist on his passing his preliminary education before he enters a medical school or hospital, and thus the student will relieve his mind of the apprehension of a future examination, which he will assuredly put off to the last moment if he can.

The preliminary examination (of the subject of which details will be found in the official regulations of each college) having been passed or postponed, Mr. Sawyer comes to town to begin work.

He may do so either (1) on his own account, or (2) he may become voluntarily a pupil of some medical man, usually a teacher or hospital surgeon, who can assist him in his studential course. This is by no means a require-

ment of any of the colleges; it is purely a matter of option. Should the student pursue the first course, he usually comes to town, takes a lodging close to his school and hospital, either by himself or in companionship with some *chum*, and either arranges to maintain himself or to board with his landlady. There is, of course, every degree of expense and comfort, but we should say that reasonable yet frugal living may be had in Dublin at about 10s. per week for lodging, and £5 to £6 per month for maintenance.

We would here, as a matter of private judgment, remark that it is better for parents to have board provided on a good substantial scale by the house. Young men are too apt to spend their money on luxuries or extravagancies, and make up the deficit by using insufficient food, to the great injury of the health.

#### COST OF EDUCATION.

Should the student proceed on his account, the lectures necessary for the L.R.C.S.I. will amount to £65; hospital attendance about £25; lying-in hospital from £4 4s. to £7 7s. These, with the diploma fee of £26 5s., represent the essentials. The sum of £50, paid down at the commencement is taken by the College of Surgeons as payment in full for all lectures requisite, and all the hospitals allow a considerable discount. Thus, the absolute payment will amount to somewhere about £83, taking the minimum mode of payment. In addition to this sum are to be considered the payments for "grinding," or "coaching," as the Londoners call it, a process by no means necessary to any industriously inclined student, particularly under the new and more practical *régime*, where "tips" will be less useful than the practical knowledge and the fall of the mere coached be rendered probable by being asked to put his ideas on paper, examine his patient, make his diagnosis, and order his prescription. The fixed sum is at present, for private teaching, £15 15s. for the surgical and medical qualifications, and £5 5s. for pharmacy, &c. Should the candidate "grind" for the army and navy examinations, a fee varying from £10 10s. to £21 is, we believe, usual. Should the candidate perform operations on the subject as a practice, they will cost something extra. So that, assuming the extras or voluntary costs are incurred, the total will vary, say, from £114 to £120 on a moderate scale: it is, of course, to be expected that pupil holders should have some extra payment; we therefore might name for them 140 guineas.

#### PAYMENT OF FEES.

If Mr. Sawyer becomes an apprentice, he need trouble himself nothing about his payments. If he is his own manager, he must enter his name with the secretaries of the school and hospital, and pay for the lectures and hospital he intends to take out. If he is wise he will not adjourn the majority of his lectures, as he may, to the next year, but will take in his first year a full third of his curriculum. He is supposed to pay the professor's fee or hospital fee in full on entering his name, but few students do so, and many, we are sorry to say, are in the habit of entering for the minimum allowable number of lectures, and paying the minimum allowable proportion of the fee, putting off the attendance perhaps for ever, certainly until the last moment, and adjourning the payment until they take up the certificates.

By a most objectionable laxity of system a student may

get credit for one of his four years of his attendance by paying a couple of guineas for dissections, and he may think himself safe in doing so if money be scarce; but if he does not pay his full third or fourth of the fees each year it often happens that he has to put off his examination from year to year—perhaps for ever—for want of the money to pay the accumulated fees of previous years.

The entry of names and commencement of study is supposed to date from the 1st of October in each year, but really does date from the 1st of November, and may be delayed by the dilatory until the 25th of the same month.

Mr. Sawyer then begins work, attending hospital each morning at nine o'clock, and occupying his day from half-past eleven to five between lectures and dissections. His holidays—if the term be not ignoble—are a fortnight at Christmas and a week at Easter, and he finally returns home at the end of July.

The progress of each year is the same, except that he usually devotes more attention to "grinding," dissection, and hospital dressings, and less to lectures in his later years of study, and after the expiration of his third session, his student life, whether it begin in laziness and end in hurry and incompetency, or whether it commence in diligence and end in the confidence of proficiency, ends with the last examination, and he goes forth into the world either an ignoramus or a reliable surgeon, whichever his choice may have been.

#### PRIVATE TEACHING, OR "GRINDING."

THE classes for private instruction, or "grinding," as it is technically and generally called, are carried on in Dublin with universality and success.

As a rule, all private teachers are connected with schools of medicine, and are in every respect highly qualified, many of them being also hospital physicians or surgeons, and therefore in a position to afford the special advantages in the way of clinical instruction to their pupils.

Grinding is followed in two methods—namely, on what are commonly known as the "public" and the "private" plans. In the former, a number of gentlemen, varying in different schools from two to four, associate themselves into a firm, or co-partnership, and each man, selecting particular branches, gives instruction to those only. For these classes a pupil may enter at any period of his course, by payment of a certain sum; but as the amount demanded generally is the same at whatever period of his course the student joins the class, and as he is taught for it until he obtains his degrees, it is usual to enter as early as possible, so as to secure the largest amount of instruction; but while there can be no objection to entering the name at the earliest period, we strenuously advise the student not to devote himself to "the grind" for the first, or even for his second year of study, but to apply himself to his hospital and dissecting.

As an example of the method pursued with regard to these "public grinds," we cannot do better than give the following extract, treating on the subject, from the book of instructions and information for students issued by the Professors of the School of Surgery of the Royal College of Surgeons:—

"In these classes students are taught so as to ensure that the subject shall be thoroughly understood by them.

"They are divided into senior and junior, according to the year of study, capacity, and diligence of the pupil.

"The subjects are—

"Practice of Medicine, Midwifery, and Surgery.

"Anatomy and Physiology.

"Materia Medica, Botany, and Chemistry.



"At least four classes are held daily (besides those for junior) at such times as do not interfere with the lectures at the School, each lasting for one hour—part of these classes being in the evening, for those who cannot otherwise attend. The fee is £18 18s., half of which is paid at the time of entry, the remainder when the diploma or degree is obtained.

"Should *Materia Medica*, Botany, and Chemistry not be required, £15 15s. for all the other classes divided in a similar manner.

"The fee for *Materia Medica* alone is £5 5s.

"For those who have already obtained professional qualifications, there are classes held for the army and navy medical competitive examinations, when special instruction is given in all the subjects required. Fee for these classes varies from £10 10s. upwards, according to the length of time required."

"Private grinding" is simply an arrangement quite independent of the other. A student who may, or may not, be a member of another class wishes for instruction; he goes to a "grinder," who, for a sum of, usually, £3 3s. per month, instructs him in the required branches of his profession. As a rule, each teacher devotes himself to particular subjects: thus, one gentleman grinds in, perhaps, Anatomy, Physiology, Surgery, and Medicine, another in Surgery alone, whilst a third will teach Chemistry, Botany, and *Materia Medica*.

In some schools slight differences of system are obtained: thus, a pupil may enter for the subjects he requires by paying a fixed sum, which entitles him to attend for the length of a session, but gives him no further claim on the attention of his grinder.

Each of these plans will be perceived to have its own particular advantages. By entering for public grinding a pupil, on the payment of a moderate sum, secures that he shall be taught all his necessary subjects; while, on the other hand, if he enters for private grinding, he may, from being in a smaller class, secure a larger amount of individual attention; but does so at an increased expense, and must pay separately for the various branches of his teaching.

It does not require a very arithmetical head to see the difference between paying—say £15 15s. for being taught for four years at least, in Anatomy, Physiology, Medicine, and Surgery, and paying £3 3s. per month for instruction in Anatomy and Physiology, and the same for Surgery or Medicine.

A list of the private teachers will be found in another part of our issue.

## REGULATIONS AND BYE-LAWS OF LICENSING BODIES IN IRELAND.

### UNIVERSITY OF DUBLIN.

(For Names of Professors and Examiners see Advertisement.)

#### REGULATIONS OF THE SCHOOL OF PHYSIC.

##### *Matriculation.*

Every student must be matriculated by the senior lecturer, for which a fee of five shillings is payable; but he need not attend any of the Arts Courses unless he desire to obtain a Licence or Degree in Medicine or Surgery. No student can be admitted for the Winter Courses after the 25th November.

#### QUALIFICATIONS FOR DEGREES AND LICENCES.

##### *Bachelor in Medicine.*

Candidates must be graduates in Arts, and may obtain the degrees at the same commencements as the B.A., or at any subsequent one. The medical education of a Bachelor in Medicine is of four years' duration, and comprises the following lectures:—

*Winter Courses.*—Anatomy and Physiology; Practical Anatomy, with Dissections; Surgery; Chemistry; Practice of Medicine; Midwifery.

*Summer Courses.*—Botany; *Materia Medica* and Pharmacy; Institutes of Medicine; Medical Jurisprudence and Comparative Anatomy; Heat; Electricity and Magnetism.

Hospital attendance on a Medico-Chirurgical Hospital during three courses of nine months each, with clinical lectures; six months' Practical Midwifery. Six months' Dissections and three months' Laboratory instruction in Chemistry are required.

The Courses may be attended at any recognised Medical School.

The fee for the *Licent ad Examinandum* is £5.

The fee for the degree of M.B. is £11.

##### *Doctor in Medicine.*

A Doctor in Medicine must be M.B., or qualified to take that degree, for three years. He must also read two Theses before the Regius Professor of Physic.

Total fees for this degree, £13.

##### *Bachelor in Surgery*

Must be a B.A., and have spent four years in the study of Surgery and Anatomy. (a)

The Curriculum comprises the following, in addition to the Course for the M.B.:—

Theoretical and Operative Surgery ...	One Course.
Dissections ... ..	Two Courses.
Ophthalmic Surgery ... ..	One Course.

Nine months in a metropolitan hospital.

Candidates are required to perform operations on the dead subject.

Candidates for the B.S. who have already passed the M.B. will be examined in Anatomy and Surgery only.

Fee for the *Licent ad Examinandum*, £5.

Fee for the degree of Bachelor in Surgery, £1.

##### *Master in Surgery*

Must be a B.S. of three years' standing, and must read two Theses, as for the M.D.

Fee for the Degree of Master in Surgery, £11.

#### UNIVERSITY LICENCES.

Candidates for the Licences in Medicine or Surgery must be matriculated in Medicine, and must have completed two years in Arts.

##### *Licentiate in Medicine.*

The Course and Examination are the same as for the M.B. An L.M., on proceeding to the degree of B.A., may become a B.M. on paying the fees without further examination.

Fee for the *Licent ad Examinandum*, £5.

Fee for the Licence in Medicine, £5.

##### *Licentiate in Surgery.*

The Course and Examination necessary for the Licence in Surgery is the same as for the degree of Bachelor in Surgery

Fee for the *Licent ad Examinandum*, £5.

Fee for the Licence in Surgery, £5.

#### MEDICAL SCHOLARSHIPS.

Two Medical Scholarships are given annually, value £20 per annum each, tenable for two years, the examinations for which are held each year in June, in the following subjects:—Anatomy and Physiology, Chemistry, *Materia Medica*, Botany, Experimental Physics, and Comparative Anatomy.

##### *Medical School Exhibitions.*

The Professors of the University School give three Exhibitions annually, two senior, value £15 and £10, open to all students who have been three years attending the school, the subjects being—Practice of Medicine, Surgery, Pathology, and Forensic Medicine; one junior, value £15, the time and subjects of examination being the same as those for the Medical Scholarship.

The Board of Trinity College have recently passed orders:—  
1. That three-fourths of the lectures must be attended.  
2. That a daily roll be called by each Professor.

Students entering for Demonstrations and Dissections are required to pay Eight Guineas before December; Dissections only, Five Guineas; Demonstrations only, Three Guineas.

Candidates for the M.B. are required to produce a certificate of actual attendance upon cases of Fever.

(a) Students in the School of Physic before 22nd June, 1872, may obtain the M.Ch. according to the Regulations previously in force.



(Full particulars as to the Educational Staff, Hours of Lectures, &c., in the School of Physic of the University will be found in our advertising columns.)

Official regulations may be obtained from the Rev. S. Haughton, F.T.C.D., Trinity College, Dublin.

## THE QUEEN'S UNIVERSITY IN IRELAND. FACULTY OF MEDICINE.

### DEGREE OF DOCTOR OF MEDICINE.

EACH candidate for the degree is required—

1. To have passed in one of the Queen's Colleges the examination for Matriculation in Arts. 2. To have attended in one of the Queen's Colleges lectures on one Continental Language for six months, and on Natural Philosophy for six months; also two Medical Courses. For the remainder of the medical courses, certificates will be received from any recognised lecturer. 3. To pass three University Examinations.

The Medical Curriculum is divided into two periods of two years each.

The first period comprises attendance on Chemistry, Natural History, Anatomy and Physiology, Practical Anatomy, and Materia Medica, Practical Chemistry in a recognised laboratory, and six months of a medico-chirurgical hospital.

The second period comprises Anatomy and Physiology, Practical Anatomy, Surgery, Midwifery and Diseases of Women and Children, Medicine, Medical Jurisprudence, Practical Midwifery, and eighteen months' Hospital Practice.

At least two of the above courses of lectures must be attended in some one of the Queen's Colleges.

The University Examinations are held twice in each year, in June and September.

Each candidate for examination must forward to the Secretary, before the 1st of the month, notice of his intention to offer himself, along with his certificates.

### THE FIRST UNIVERSITY EXAMINATION IN MEDICINE

Comprises a modern language, Experimental Physics, Zoology, and Botany.

Students may present themselves at any time after the close of the first winter session. Before being admitted to examination each candidate must produce evidence of having completed the prescribed courses.

### THE SECOND UNIVERSITY EXAMINATION IN MEDICINE

Comprises the following subjects: Anatomy, Physiology, Materia Medica, and Chemistry, to which will be added Zoology and Botany in the examination of candidates who have not previously passed the first examination. Such candidates may either undergo their examination in Modern Languages and Experimental Physics as a part of the second examination, or at any time between the second and the degree examination.

Students may present themselves for the second examination at the termination of the first period of the curriculum, or at any subsequent period, but no student can postpone his second examination until he presents himself for his degree examination.

### DEGREE EXAMINATIONS IN MEDICINE AND SURGERY, AND EXAMINATION FOR THE DIPLOMA IN MIDWIFERY.

The Examination for the M.D. comprises the subjects recommended for study during the second period.

The Examination for the M.Ch. comprises Surgery, including Operative and Clinical Surgery.

The Examination for the Diploma in Midwifery comprises the Theory and Practice of Midwifery and the use of obstetrical instruments and appliances.

Both Honour and Pass Examinations are held in September. The Examination held June is a Pass Examination.

(See Advertisements of Queen's Colleges, Belfast, Galway, and Cork.)

Official regulations may be obtained from G. J. Stoney, Esq., Queen's University, Dublin Castle.

## ROYAL COLLEGE OF SURGEONS IN IRELAND.

(For names of Professors in the College see Advertisement of the School of Surgery.)

The arrangements for granting the licences of this College are in an unsettled condition. A new system of examination had been decided upon by its Council and promulgated, and one examination has been held under it. The bringing of this arrangement into universal application has been since deferred, and we are not aware, nor do the printed regulations inform us, upon whom the new system is or is not compulsory. Within the last fortnight the Council has announced that examinations will be held on the 30th of November and 14th of December next, which is explained in detail in our advertising columns.

### The examination for

LETTERS TESTIMONIAL, OR THE L.R.C.S.I., is divided into two parts, known as the first and second halves.

### The junior class must produce certificates of—

Three courses of lectures on Anatomy and Physiology, three on Practical Anatomy, with dissections, two on Chemistry, one on Materia Medica, one on Botany, and one on Forensic Medicine. This class is examined in Anatomy, Physiology, and Materia Medica.

### The senior class must produce certificates of—

Three courses on Surgery, one on Practice of Medicine, and one on Midwifery; also, attendance on a recognised hospital for three winter and three summer sessions. This class is examined in Surgery, Operative Surgery, Practice of Medicine, and form of Prescription.

The fees are: 10s. for Preliminary Examination; £5 5s. as registered pupil of the College; £5 5s. for the Junior Class Examination, which is not returned in case of rejection, but is allowed in the fee for his second examination; £15 15s. for the Senior Class Examination—total £26 15s.

Every candidate rejected at the quarterly examination is required to pay to the College the sum of £2 2s. on applying for re-examination.

### MIDWIFERY.

After passing the L.R.C.S. the student is admitted to examination for the diploma in Midwifery upon producing a certificate of one course on Midwifery and Diseases of Women and Children; a certificate that he has attended a lying-in hospital for six months; and a certificate that he has conducted thirty labour cases at least.

Candidates are examined on the Organisation of the Female, the Growth and Peculiarities of the Fetus, the Practice of Midwifery, and the Diseases of Women and Children.

The candidate pays £1 6s. for the Midwifery diploma provided he takes it out within one month from the date of his Letters Testimonial; after that date, £2 2s.

Official information may be had on application to Mr. J. rennen, Royal College of Surgeons, Dublin.

KING AND QUEEN'S COLLEGE OF PHYSICIANS  
IN IRELAND.

## REGULATIONS RELATIVE TO THE LICENCE IN MEDICINE.

EXAMINATIONS are held on the second Tuesday and Wednesday in each month.

The name of every candidate, together with his schedule and the required documents, must first be submitted to the College on the first Friday in each month, and no name can be received later than the Monday previous.

REGULATIONS RESPECTING THE LICENCES IN MEDICINE AND  
MIDWIFERY.

Candidates who have not obtained some medical or surgical qualification must give proof of four years' study, of having passed a Preliminary Examination in Arts; and of having studied Anatomy and Physiology, Practical Anatomy, Chemistry, Practical Chemistry, Materia Medica, Botany, Medical Jurisprudence, Practice of Medicine, Pathology, Surgery, and Midwifery.

Of having attended a Medico-Chirurgical Hospital, with Clinical Lectures, for twenty-seven months.

Of six months' Practical Midwifery at an hospital, or other satisfactory evidence of having attended Practical Midwifery.

Testimonials of character from two registered physicians or surgeons are also required.

A Candidate who has already obtained a medical or surgical qualification in Great Britain and Ireland is required to fill up a schedule; but he is only required to produce his diploma or certificate of registration, and the certificate of Practical Midwifery, and testimonials as to character.

The examination is conducted partly by written questions, partly *visd voce*, and partly clinical, and divided into two parts:

First Part—Anatomy, Physiology, Botany and Chemistry. Second Part—Materia Medica, Practice of Medicine, Medical Jurisprudence, and Midwifery.

Gentlemen who have passed the first portion of the examination for the L.R.C.S.I. or M.R.C.S.E. are exempted from the first part of the examination.

Candidates who have been five years in practice are not required to undergo the written or clinical portions of the examination.

## REGULATIONS RELATIVE TO THE LICENCE IN MIDWIFERY.

Examinations for the Licence in Midwifery are held on the day after those for the Licence in Medicine.

Candidates not being Licentiates will be admitted on the following qualifications:—The Degree or Licence in Medicine or Surgery, with a Certificate of six months' Lectures on Midwifery, with six months at a recognised lying-in hospital or of having attended Practical Midwifery for six months at a recognised lying-in hospital, or other evidence of having attended Practical Midwifery.

## FEES FOR LICENCES.

The Fee for the Licence in Medicine is £15 15s.

The Fee for the Midwifery Licence is £3 3s.

The Fee for the Licences in Medicine and in Midwifery, if taken out within one month, £16.

Further information and blank schedules may be obtained by application, personally or by letter, to Dr. J. Magee Finny, the Registrar, College of Physicians, Kildare Street, Dublin.

## THE APOTHECARIES' HALL, IRELAND.

## THE ARTS EXAMINATIONS

Will be held at the Hall four times in the year, viz., the third Thursday in the months of January, April, July, and October, at the hour of twelve o'clock noon. It will be conducted by means of printed papers and *visd voce* by special examiners (Graduates in Arts of the University of Dublin), under the supervision of the Court of Directors. The answers to the papers will be required in writing.

## THE PROFESSIONAL EDUCATION AND EXAMINATIONS.

Every candidate for the Licence to Practise must produce certificates—

1. Of having passed an Examination in Arts previously to professional study.

2. Of being at least twenty-one years of age, and of good moral character.
3. Of Apprenticeship to a qualified Apothecary, or *Practical* Pharmacy with an Apothecary for three years subsequent to the Examination in Arts.
4. Of four years' Professional Study.
5. Of having attended the following courses, viz.:—Chemistry, One Winter; Anatomy and Physiology, Two Winters; Demonstrations and Dissections, Two Winters; Botany and Natural History, One Summer; Practical Chemistry, Three Months; Materia Medica, Three Months; Principles and Practice of Medicine, One Winter; Midwifery and Diseases of Women and Children, Six Months; Practical Midwifery (attendance upon twenty cases); Surgery, One Winter; Forensic Medicine, One Summer; Instruction in Vaccination.
6. Of having attended a recognised hospital during two winters and two summers.
7. Of having performed the operation of Vaccination successfully under a recognised Vaccinator.

The Examination for the Licence is divided into two parts: The First Part comprehends Chemistry, Botany, Anatomy, Physiology, Materia Medica, and Pharmacy.

The Second—Medicine, Surgery, Pathology, Therapeutics, Midwifery, Forensic Medicine, and Hygiene.

## THE PROFESSIONAL EXAMINATIONS

Will be held *quarterly*, on the first and second Mondays in January, April, July, and October.

The First Part, for Junior Students, on the first Monday, at twelve o'clock noon, and on the Tuesday and Wednesday succeeding at the same hour.

*Subjects*:—Chemistry and Botany, Monday; Anatomy and Physiology, Tuesday; Materia Medica and Pharmacy, Wednesday.

The Second Part, or Pass Examination, for Senior Students, on the second Monday, at twelve o'clock noon, and on the Tuesday and Wednesday succeeding, at the same hour.

*Subjects*:—Medicine and Surgery, Monday; Midwifery and Diseases of Women and Children, Tuesday; Forensic Medicine and Hygiene, Wednesday; Clinical Examination, Thursday.

The first two hours of each day will be devoted to writing answers, and, after that, two hours to an oral and practical examination.

Doctors of Medicine and Licentiates of a College of Physicians or Surgeons who have served an apprenticeship, or the required term at *Practical* Pharmacy, may obtain the Licence by undergoing an examination—the former in Pharmacy (a) and the latter in Medicine and Pharmacy. Licentiates of the London Society of Apothecaries are admitted *ad eundem*.

An *Honour* Examination for apprentices is held in the first week in May, upon some subject of Medical or Pharmaceutical Chemistry, and a Prize of Five Guineas is awarded to the successful competitor.

## MEDICAL SCHOOLS AND HOSPITALS.

THE Clinical Hospitals of Dublin are 10 in number, exclusive of the Cork Street Fever Hospital, the Children's Hospital in Pitt Street, the Dublin Eye and Ear Infirmary in Ely Place, and other special institutions. To some of these institutions Medical Schools are attached, others, though they have no actual or official connection with any school, are in close affinity with certain teaching bodies, while others again are without any special connection with any school. While, however, such affiliation of a school and hospital may exist, it should be remembered that the Dublin schools and hospitals are open to all comers, and the student is competent to attend

(a) The Examination in Pharmacy will include Practical Pharmacy, Pharmaceutical Chemistry, Toxicology, Medical Botany, and the British Pharmacopoeia. A full course of instruction on most of these subjects is delivered by Mr. C. R. C. Tieckborne, F.C.S., Chemist to the Apothecaries' Hall.

any hospital and any school he wishes. The restriction which rendered it obligatory for candidates for the medical degrees of the University of Dublin to attend Sir Patrick Dun's Hospital was recently abolished, and perfect "free trade" thus established.

**SCHOOL OF PHYSIC AND SIR PATRICK DUN'S HOSPITAL.**—The Medical School of Trinity College is one of the largest and most important, and in it the education of a large section of the Irish Medical Profession is carried out. It is especially frequented by those students who intend to take the Arts Curriculum of the University, but is freely open to, and largely availed of by other students. It is under the immediate supervision of the Reverend Professor Haughton, the Medical Registrar of the University, and the names of its Professors will be found appended to the advertisement in our Journal, and to the official regulations of the University. Two Medical Scholars are elected annually by the Board of Trinity College, at an examination held at the end of June, subject to conditions stated in the College Calendar. Each scholarship is worth £20 per annum, and is tenable for two years. The Professors of the School of Physic give three exhibitions annually, amounting altogether in value to £40, subject to conditions prescribed by the Professors themselves.

Sir Patrick Dun's is the hospital attached by Act of Parliament to the School of Physic, and officered by the Professors of that school. It was for many years a purely medical hospital, but is now a large medico-chirurgical hospital, with a Midwifery Maternity attached. (*For Names of Professors and further information see Advertisement.*)

The ROYAL COLLEGE OF SURGEONS SCHOOL is situated within the walls of the College, and is under the superintendence of the Council, who appoint the Professors. The Introductory Address will be given on the last Monday in October by Dr. Mapother. The Professor of Physiology commences his course with a series of twelve lectures on Comparative Anatomy—free to the public. The dissecting-rooms have been recently much enlarged. Prizes in Anatomy and Physiology, and Surgery, will be awarded at the end of the winter session. (*Full particulars will be found in the Advertisement.*)

The CITY OF DUBLIN HOSPITAL has been hitherto more closely connected with the College School than any other hospital. It is situated in Upper Baginbun Street, about ten minutes' walk from the Royal College of Surgeons. The hospital contains 104 beds, and accommodates about 800 intern patients annually. There are special wards for ophthalmic and aural diseases (on which subjects a special course of lectures is delivered), and for diseases of children. A new wing has been lately opened for the reception of fever and other infectious diseases. The "Purser" Studentship of £20 per annum (with apartments) is obtainable by competitive examination by all students; numerous prizes and medals are given, and special certificates are granted. (*For full information see Advertisement.*)

The CATHOLIC UNIVERSITY SCHOOL is situated in Cecilia Street, about ten minutes' walk from the University itself in St. Stephen's Green. (*Full particulars will be found in the Advertisement.*)

The hospitals most closely connected with this School are St. Vincent's, in St. Stephen's Green; the Mater Misericordiae Hospital, in Eccles Street; Jervis Street Hospital; and House of Industry Hospital.

ST. VINCENT'S HOSPITAL was established in 1834 by the Sisters of Charity, some of whom had studied the system of the Parisian hospitals, after which it was modelled. The ward for "*Enfants Malades*" is an interesting feature. The hospital has over a hundred beds constantly full, and each sister has charge of about twelve patients. In connection with it a Convalescent Home was established four years since at Stillorgan. The clinical instruction in medicine and surgery is given by Dr. Quinlan, Dr. Mapother, Dr. O'Leary, and Dr. Cryan. Senior and junior prizes in clinical medicine or surgery are awarded at the end of the winter session.

The Introductory Lecture will be delivered by Dr. Mapother in the beginning of November. (*See Advertisement.*)

The MATER MISERICORDIAE HOSPITAL is the largest of the Dublin hospitals, and is intended to be much extended. It is situated at the northern side of the town.

There are three resident pupils appointed every six months. Good lodgings can be had very cheap close to the hospital. Prizes to the value of £30 are awarded at the end of the winter session for the best reports on the cases under treatment in the hospital. (*See Advertisement.*)

JERVIS STREET HOSPITAL is one of the oldest established charitable institutions in Dublin, having been founded in 1721. It is situated in a part of the city not otherwise provided with hospital relief, and which, from its commercial character, supplies the hospital with an abundance of surgical cases. Like St. Vincent's Hospital, its nursing arrangements are under the charge of a community of nuns. The hospital being found inadequate to the demands upon it, is about to be re-built. (*Full particulars will be found in the Advertisement.*)

The LEDWICH SCHOOL was founded in 1810 by the well-known Dr. Kirby, and since then has fully sustained its prestige under the management of the Messrs. Ledwich and Mason, after the former of whom it is named. It is situated in Peter Street, not five minutes' walk from the College of Surgeons, the Meath, and Mercer's Hospital, and in the same street with the Adelaide Hospital and the Anglessea branch of the Coombe Lying-in Hospital, and ten minutes' from the Catholic University School, the School of Physic, and the City of Dublin Hospital.

Dr. Kelly, Surgeon to Jervis Street Hospital, will deliver the Introductory Address, on Monday, the 2nd of October. (*For full particulars see Advertisement.*)

MERCER'S HOSPITAL enjoys a high reputation as a surgical hospital, and is specially resorted to in cases of accident. It is situated equidistant from the Ledwich School and the College of Surgeons, and not far from the School of Physic, and numbers amongst its staff professors in both the former schools. The great majority of the students of the Ledwich School receive within the walls of Mercer's their hospital teaching. (*Full particulars will be found in the Advertisement.*)

The CARMICHAEL SCHOOL is situated in North Brunswick Street.

The various lectures are now delivered, and the dissections carried on in the new building, which the munificence of the late Surgeon Carmichael has given to the proprietors.

The close proximity of this school to several of the Dublin clinical institutions, and its intimate connection through its teachers with the Richmond, Whitworth, and Hardwicke, as well as Jervis Street Hospitals, ensures equal opportunities to the pupils of becoming thoroughly acquainted with the more immediately practical part of their profession.

Arrangements have now been completed for rendering more available the Carmichael premium bequest, which enables the proprietors to distribute prizes to the amount of £60 yearly; and the Scholarship, value £15 yearly, which the friends of the late Dr. Mayne founded in his name, is allotted to the termination of the winter session.

To fill the vacancies which have recently occurred on the staff, the following appointments have been made:—

To the Chair of Chemistry—Mr. C. R. C. Tichborne, Ph.D., F.C.S., Chemist to the Apothecaries' Hall, &c., &c.

To the Chair of Anatomy—Mr. William Thomson, M.D. Q.U.I., F.R.C.S.I., Surgeon to the Richmond Hospital.

To the Chair of Forensic Medicine—Mr. G. M. Foy, F.R.C.S.I. (*See Advertisement.*)

RICHMOND, WHITWORTH, and HARDWICKE HOSPITALS, North Brunswick Street.

These Hospitals contain 312 beds—110 for surgical cases, 82 for medical cases, and 120 for fever and other epidemic diseases. During the past year 2,315 patients were admitted, presenting to students the most ample opportunities for studying every form of disease.

The Dispensary establishment for the medical hospitals is now carried on in a large new building erected for the purpose.

The Truss establishment, for the distribution of trusses to the ruptured poor of Ireland, is connected with these hospitals. In the examination of the applicants, the student is afforded the facility not only of seeing all the varieties of hernia, but of acquiring a knowledge of the several diseases that may be confounded therewith.

Eight resident clinical clerks are appointed each half-year, and provided with furnished apartments, fuel, &c., &c.

These appointments are open not only to advanced students, as formerly, but also to those who are qualified in medicine or surgery. A house-surgeon, who receives salary, is elected every second year.

The Richmond Institution for the Insane, containing 1,000 beds, adjoins these hospitals, affording every facility for the study of mental diseases.

The Carmichael School of Medicine, in which all the courses of lectures required by the different colleges are delivered, adjoins these hospitals; the student is thus furnished with every facility for completing his professional education.

DR. STEEVENS' HOSPITAL AND SCHOOL are situated close to the Kingsbridge Terminus of the Great Southern and Western Railway, and therefore occupy a position of their own, far removed from the other medical institutions.

Immediately adjoining is St. Patrick's (Swift's) Asylum for the Insane.

There is accommodation for residence of seven surgical and four medical residents; besides whom the resident-surgeon receives house pupils. The fees payable for the privilege of residence are 21 guineas, winter; 15 guineas, summer six months; students have apartments, coal, gas, and furniture.

Accommodation outside the hospital, in the neighbourhood, is arranged by the hospital authorities. (See Advertisement.)

#### PRIZES.

Three Cusack Medical and Exhibition, of £8, £5, £3; two Midwifery Assistants, £30 each; one Medical Clinical Prize, £10 10s.; one Surgical Prize, £10 10s.

As we have said, certain hospitals have no special affinity with any college or school. Of these are the Meath and Adelaide Hospitals.

The MEATH HOSPITAL, which is also the public infirmary of the county of Dublin, containing 120 beds, and now in the 119th year of its existence, ranks among the oldest of the charitable institutions of this city. It is situated on the southern side of the city, upon about three acres of ground, formerly called "The Dean's Vineyard." The original Meath Hospital, situated on the Coombe, was opened in 1753. The foundation-stone of a new Meath Hospital, on the Coombe (now the Coombe Lying-in Hospital), was laid out by Lord Brabazon, 10th October, 1770; this hospital was, in 1774, constituted the County Dublin Infirmary, by Act of Parliament. The present building, in Heytesbury Street, was opened in 1822, since which time the building has undergone considerable enlargements and improvements. In 1830 the theatre for operations and lectures was erected. In 1852-3 the Collis Wards were added as a memorial to Maurice Collis, twenty-five years surgeon to the hospital. In 1865 the "Smyly Ward," built for the special accommodation of children, was opened by the Lord-Lieutenant, Lord Wodehouse. (Full particulars as to the medical and surgical staff will be found in the Advertisement.)

The ADELAIDE HOSPITAL is in Peter Street, next door to the Ledwith School, and within a few minutes' walk of the College of Surgeons and the Universities. From the 1st of October the physicians and surgeons will visit the wards, and give instructions at the bedside, at the advertised hours.

There are fever wards apart from the hospital, and two wards for infants and children. Special hours are devoted to clinical instruction in the Diseases Peculiar to Women, the Diseases of the Eye, and Cutaneous Diseases, and students are individually instructed in the use of the Stethoscope, Ophthalmoscope, Laryngoscope, and Microscope. Two resident pupils are selected half-yearly. Prize examinations are held at the termination of the session; in addition a prize of the value of £5, founded by Dr. Knaggs, of Australia, a former pupil of the hospital, is awarded in June, annually. (See Advertisement.)

#### SPECIAL HOSPITALS.

The Special Hospitals of Dublin are the Westmoreland Lock Hospital, Cork Street Fever Hospital, Pitt Street Children's Infirmary, the Dublin Eye and Ear Infirmary, St. Mark's Ophthalmic Hospital, and the National Eye and Ear Infirmary.

The PITT STREET CHILDREN'S INFIRMARY is situated close to Mercer's Hospital and the College of Surgeons. It was

founded to provide treatment specially for children, and to teach that special branch of disease. Dr. Moore and Dr. Churchill, senior, are the medical officers. (See Advertisement.)

The DUBLIN INFIRMARY FOR DISEASES OF THE EYE AND EAR was founded two years ago. It accommodates eighteen beds, and has for its chief surgeon Dr. Jacob, formerly Ophthalmic and Aural Surgeon to the City of Dublin Hospital; and for its consultants, Mr. Porter, Surgeon to the Queen in Ireland, Dr. Evory Kennedy, and Dr. John Cronyn. At the Dispensary every form of disease of the eye and ear is seen thrice weekly, and operations are performed on Tuesdays and Thursdays at four o'clock. Particulars of fees for attendance may be had from Dr. Jacob. (See Advertisement.)

ST. MARK'S OPHTHALMIC HOSPITAL AND DISPENSARY FOR DISEASES OF THE EYE AND EAR.—This is the oldest and largest special ophthalmic hospital in Dublin, and was founded by Sir William Wilde. Instruction is given on the mornings of Mondays, Tuesdays, Thursdays, and Fridays, from eleven to one o'clock, and operations are performed on Wednesdays and Saturdays from eleven to one o'clock. A surgeon resides in the institution, and receives a salary of £30, besides rooms, gas, coal, &c. (Full particulars will be learned on reference to the Advertisement.)

COOMBE HOSPITAL.—This hospital was founded in 1826, but it was not till 1867 that it was incorporated by royal charter, which enables its medical officers to issue diplomas qualifying the holders to practise midwifery. This hospital is situated in the centre of a district densely populated by the lower orders, and thus affords the amplest opportunities for practice. It accommodates about 600 labour cases within its walls, while those attended as externs amount to nearly double that number. Moreover, the chronic ward for the reception of cases of the diseases of females gives admission to about eighty patients annually. Its wards are in the charge of Dr. Ringland and Dr. Sawyer, as masters, and Dr. A. H. Ringland as assistant-master, whilst the chronic ward for the diseases of females is under the charge of Dr. Kidd, the obstetric surgeon of the institution. The fee for attendance is £4 4s. for six months as extern, and £10 10s. as intern pupil. During that period the student attends on a given night in each week, or oftener, if circumstances permit, and takes charge in his turn of any cases that may be admitted to the labour wards, or may call for his assistance outside. An annual examination is held in May and November, at which prizes of considerable amount are awarded, and certificates of good answering granted. Two paid resident pupil midwifery assistantships, and a paid clinical clerkship under the obstetric surgeon, are obtainable annually by competitive examination, for which all pupils who have obtained their midwifery diploma are eligible.

CORK OPHTHALMIC AND AURAL HOSPITAL (Special Department for Diseases of the Throat), founded 1863.—Average extern attendance about 2000; contains twenty beds. It is supported by voluntary subscriptions, and a small corporation grant, its gross income being about £300 a year. The beds are partly self-supporting, a few being free.

#### THE QUEEN'S COLLEGES.

THESE three important institutions are the special schools of the Queen's University, and are situated in Belfast, Galway, and Cork. They receive a large subvention from the public funds, and are provided with every facility for the education of their students. It is essential that every candidate for the medical or surgical degrees of the Queen's University shall have attended courses of lectures in Modern Languages, Natural Philosophy, and at least two medical subjects, in one of the provincial colleges, so that a brief residence within a Queen's College during a portion of one of the years of medical study is compulsory upon all candidates for the licences of this University.

#### REGULATIONS COMMON TO ALL THE QUEEN'S COLLEGES.

*Students.*—Students are either matriculated or non-matriculated.

Candidates for degrees, or for scholarships, exhibitions, or prizes, must pass a matriculation examination.

Non-matriculated are permitted to attend the lectures of any of the professors without being required to pass the matriculation or any other examination.

*Matriculation Examination* will commence in the beginning of October and November.

The subjects in which candidates will be examined are these :—

Greek :—Grammar.

Any one of the following authors :—

Homer—*Iliad*, Books I. and II. Xenophon—*Anabasis*,

Books I. and II.

Latin : Any one of the authors.

English :—Grammar.

Outlines of Grecian History. Outlines of Roman History.

Outlines of Ancient and Modern Geography.

Mathematics : Arithmetic, Algebra, and Euclid—Books I. and II.

The Matriculation Examination is held at the commencement of the first term of each session; but additional Matriculation Examinations are held before the close of the term.

The last Matriculation Examination for students in the Faculty of Medicine is held on the 16th of November.

Fee for Matriculation, 10s.

Students in one of the Queen's Colleges, or in any University, are permitted to take corresponding rank in one of the Queen's Colleges, and to compete for scholarships of the corresponding year.

*Medical Scholarships.*—Of the eight Junior Scholarships appropriated to the Faculty of Medicine, two will be awarded in each of the four years.

Candidates must be matriculated before they can compete.

Students intending to compete for Scholarships of the Second Year must have attended in one of the Queen's Colleges, or in a University, two of the following, viz. :—Chemistry—Botany and Zoology—Anatomy and Physiology—Materia Medica and Pharmacy—Practical Chemistry—Practical Anatomy.

For Scholarships of the Third Year they must have attended four of the following, viz. :—Chemistry—Botany and Zoology—Anatomy and Physiology—Materia Medica and Pharmacy—Practical Chemistry—Practical Anatomy.

For Scholarships of the Fourth Year must have attended in their third year two of the following, viz. :—Medicine—Surgery—Midwifery and Diseases of Women and Children.

To acquire a year's standing, the student, whether matriculated or not, must attend two of the classes above mentioned.

*Examinations.*—Junior scholars are exempted from the payment of one moiety of the class fees.

*Exhibitions.*—The College is empowered to award Exhibitions, varying in value from £10 to £20, at the same Examinations as the Scholarships, and to be held upon the same terms.

Exhibitioners are required to pay the whole amount of the class fees.

All junior scholars and exhibitioners must attend lectures, and pass the sessional examinations.

*Prizes.*—Two prizes for English Prose Composition and two prizes for Geometry have been founded in the College, to be awarded annually at entrance :—First prize for English Prose Composition, £3 worth of books; second, do., £2 worth. First prize for Geometry, £3 worth; second, do., £2 worth.

*Fees.*—The College fees payable by matriculated students are 10s. for the first year and 5s. each subsequent year.

The fees payable for attendance on courses of lectures are £1 for each course of one term only, and £2 for each course of more than one term, when attended for the first time, and £1 for each re-attendance on the same.

This rule applies in all cases except the following :—

The fee for Anatomy and Physiology is £3 for the first time, and £2 for every subsequent attendance; and for Practical Anatomy or Practical Chemistry is £3 for each attendance.

The fees for honour courses are £2 for each course.

This rule does not apply to Practical Chemistry or Operative Surgery. In the former case the fee is £1 a month. Operative Surgery is £3.

A detail of the prizes and exhibitions in arts and medicine, the names of the professors, and other information, will be found in the *Advertisements* of this issue, and full details may be had on application to—

*Bel/aw.*—Rev. Richard Oulton, Registrar.

*Cork.*—Robt. John Kenny, Esq.  
*Galway.*—Thos. W. Moffett, LL.D.

### PRIVATE TEACHING IN DUBLIN.

IN the School of the Royal College of Surgeons the Senior Demonstrators are associated together for the purpose of private teaching, each gentleman giving instruction in special branches.

Mr. Croly	} in Surgery, Anatomy, Physiology, and Medicine.
Dr. W.T. Stoker	
Dr. L.H. Ormsby	
Dr. W.J. Smyly	

Dr. W. Handsel Griffiths, Librarian at the College of Surgeons, will meet his Classes for Professional Examinations on the 1st of October.

There is also a firm of teachers composed of Dr. Stoney (one of the Senior Demonstrators), Dr. Wheeler, and Dr. William Stoker.

Dr. Stoney	} instructs in Anatomy, Comparative Anatomy, Zoology, Physiology, and Pathology.
Dr. Wheeler	
Dr. Wm. Stoker	
	} instructs in Surgery, Medicine, and Anatomy.
	} instructs in Materia Medica, Botany, Chemistry, Physics, Jurisprudence, and Prescriptions.

In the Trinity School—

Dr. W. Smith receives pupils privately and in class in Materia Medica, Chemistry, and Botany.

Dr. Finny and Dr. E. W. Collins conjointly conduct a class at the School of Physic in Medicine, Forensic Medicine, Surgery, Anatomy, Physiology, and Midwifery. They also receive private pupils in these subjects.

Mr. J. Barton receives pupils in all the subjects of the various examinations.

In the Carmichael School—

Dr. Corley	} Anatomy, Physiology, Surgery, and Medicine.
Dr. Kelley	
Dr. Cameron	} Materia Medica, Chemistry, and Botany.

In Steevens' Hospital and School—

Mr. Swan.	} Chemistry, Botany, and Materia Medica.
Dr. Bookey.	
Dr. Bell	

Dr. Tweedy—Preliminary Examination.

In the Catholic University private teaching is conducted by Drs. Hayes, Coppinger, and Nixon.

In the Ledwich School—

Dr. Ledwich and
Dr. Mason, assisted by
Dr. Ward,
Dr. Corry,
Dr. Battersby.

### RELATIVE COST OF MEDICAL EDUCATION IN IRELAND.

(Exclusive of private teaching.)

UNIVERSITY OF DUBLIN M.B. and M.Ch.—1. Lectures, £52 15s.; 2. Hospitals, £33 12s.; 3. Degrees, £32—£118 7s.; expense of Degree in Arts, £83 4s. Total, £201 11s.

QUEEN'S UNIVERSITY M.D. and M.Ch. (all lectures being taken in the provincial colleges.)—£62 9s.; ditto (two years lectures and hospital taken in Dublin), say, £75.

ROYAL COLLEGE OF SURGEONS and KING and QUEEN'S COLLEGE OF PHYSICIANS L.R.C.S.I. and L.K.Q.C.P.I., £128 18s..

APOTHECARIES' HALL, L.A.H., £50.



## TECHNICAL EDUCATION IN IRELAND.

## THE ROYAL COLLEGE OF SCIENCE.

THE educational staff of this institution consists of nine professors, one demonstrator, and one laboratory assistant. It supplies, as far as practicable, a complete course of instruction in science, applicable to the industrial arts, especially those which may be classed broadly under the heads of mining, agriculture, engineering, and manufactures.

The course of instruction extends over three years, each year being divided into two terms. In the first two years the instruction is general. In the last year it is specialised under the heads of mining, agriculture, engineering, and manufactures.

There are four royal scholarships of £50 yearly each, with free education, tenable for two years; two will become vacant each year. They will be given to students who shall have been a year in the College.

There are also nine royal exhibitions attached to the College, of £50 each, tenable for three years.

The session commences on the first Monday in October, and lasts until 21st June following.

The fees payable are £2 for each separate course of lectures. (For further particulars see Advertisement, or apply to F. Sidney, Esq., LL.D., Royal College of Science, Dublin.)

## DUBLIN INTRODUCTORIES.

School of Physic—None.

Royal College of Surgeons—Dr. Emerson Reynolds—October 26th

Catholic University—Dr. Hayden.

Ledwich School—Dr. Kelly—November 2nd, 12 noon.

Carmichael School—None.

Dr. Steevens' Hospital School—None.

Meath Hospital—Dr. L. H. Ormsby.

City of Dublin Hospital—None.

St. Vincent's Hospital—Dr. Mapother.

Mercer's Hospital—None.

Mater Misericordiarum Hospital—Dr. John Hughes

Jervis Street Hospital—None.

Richmond Hospital—Dr. W. Thomson—November 5th.

Adelaide Hospital—None.

## MEDICAL EDUCATION IN SCOTLAND.

## THE UNIVERSITIES.

THE fees for degrees in all four of the Scottish Universities are uniform—viz.: M.B., £15 15s. (being £5 5s. at each of the three examinations); C.M., £5 2s. (in addition to the fees of M.B.); M.D., £5 5s. (in addition to the fees for M.B.); and £10 3s. for Government stamp.

*University of Edinburgh.*—This is a teaching as well as a qualifying body, and the other faculties are as complete as that of Medicine. The University confers the degree of M.D. and M.B., as well as that of C.M., and also affords its graduates the opportunity of obtaining, at the same time, a surgical, in addition to the medical diploma. The C.M. is not conferred on any one who does not take at the same time the M.B. For the degrees of M.B. and C.M. four years of professional study must be completed after passing a preliminary examination recognised by the Medical Council. A degree in Arts in any British University exempts from the preliminary examination. Of these four years one must be passed in the University of Edinburgh, and one other either in that or some other University entitled to confer the degree of M.D.

The University recognises the course of lectures of extra-academical teachers in Edinburgh, subject to certain regulations.

*University of St. Andrews.*—This University confers the degree of Master in Surgery (C.M.), as well as the degrees of Bachelor and Doctor of Medicine. Residence in one of the Scottish Universities is required, but an exception is made in favour of ten persons yearly.

*University of Aberdeen.*—This is a large teaching body, as well as one entitled to confer degrees in all the faculties. The curriculum required for medical degrees is the same as that of the University of Edinburgh. Thus, four years of professional study, after passing a preliminary examination, is essential. One year must be passed at Aberdeen. The lectures qualifying for this and other examining bodies are delivered by the Professors in the University.

*University of Glasgow.*—This is a large teaching as well as an examining body. The same degrees are conferred as in the Universities of Edinburgh and St. Andrews. The course of study and regulations to be observed by candidates are the same as those of the University of Edinburgh, one year's compulsory residence at the University of Glasgow being required instead of at Edinburgh. The examinations are conducted by the Professors of Medicine, together with the three Assessors appointed by the University Court. The lectures qualifying for the degrees are delivered by the Professors in the University, and the hospital practice is attended at the Glasgow Royal Infirmary.

## THE COLLEGES.

*Royal College of Physicians of Edinburgh.*—This, like its London sister, is exclusively a licensing body, though, since the arrangement for the double qualification has been carried out, it may possess some additional control over the teaching at Surgeons' Hall. By this arrangement students who have filled the prescribed curriculum may pass the joint examination of this College and the Royal College of Surgeons, and obtain the two diplomas. They can thus at once register both a medical and surgical qualification.

The Fellowship is conferred only by election, and no one can be balloted for until he has been a member for one year, and has attained the age of 25.

The Membership is conferred on licentiates of a College of Physicians, or graduates of a University, who are twenty-four years of age, and satisfy the College of their knowledge of medical and general science.

The Licence.—The regulations are nearly the same as those for the Joint Examination for the Scotch Double Qualification.

The fee payable by a licentiate is £10 10s.

The fee to be paid by a member is £31 10s. When a licentiate is raised to the rank of a member he pays £21. When a member is raised to the rank of a fellow, the fee is £31 10s., exclusive of stamp duty, which amounts to £25. All candidates for fellowship or membership must lodge their fees, and the amount of stamp duty payable at the time to Government, with the treasurer, previously to presenting their petitions.

*Royal College of Surgeons of Edinburgh.*—Candidates for a surgical diploma must have followed a course of study in a university, or in an established school of medicine, or in a recognised provincial school.

*Preliminary Examination.*—All who intend becoming candidates for the diploma of the College must have passed the complete examination in general education as prescribed by the General Medical Council, and have had their names inscribed in the Register of Medical Students at the commencement of their professional studies. Testimonials of proficiency granted by educational bodies recognised by the Medical Council exempt students from the Preliminary Examination.

*Professional Education.*—Candidates commencing professional study must have been engaged, during four years after the examination in general education, in professional study, which shall include not less than four winter sessions, or three winter and two summer sessions' attendance at a recognised medical school.

*Professional Examination.*—Candidates are subjected to two Professional Examinations, conducted at separate sittings, partly in writing and partly orally.

The First Examination embraces Anatomy, Physiology, and Chemistry.

The Second Examination embraces Surgery and Surgical Anatomy; also Medicine, Midwifery, Materia Medica, and Medical Jurisprudence; and does not take place before the termination of the winter session of the last year of study.

The Fellowship is conferred only on persons who have obtained a diploma from this or one of the Colleges of Surgeons of England or Ireland, or the Faculty of Physicians and Surgeons of Glasgow, and who are twenty-five years of age. At the election, three-fourths of the votes are required to be in the candidate's favour, and he has to promise to maintain the privileges of the College and obey its laws. Fellows are forbidden to keep open shops, to be connected with secret remedies, or to suffer their names to be used in indelicate advertisements or publications.

The Licence.—The regulations are nearly the same as those for the Joint Examinations conducted by the Colleges of Physicians and Surgeons.



## THE SCOTCH DOUBLE QUALIFICATION.

As already stated, the Royal College of Physicians of Edinburgh has made arrangements with the Royal College of Surgeons of Edinburgh, and the Faculty of Physicians and Surgeons of Glasgow, by which, after one series of examinations, the successful candidate receives two diplomas, and is thus able to register a medical and a surgical qualification under the Medical Act, thus :—

Lic. Roy. Coll. of Phys. Ed., and Lic. R. C. S. Edin., or Lic. R. Coll. of Phys. Ed., and L. Fac. Phys. and Surg. Glas., as the case may be.

The principle on which the joint examinations are conducted is a simple compromise by which the College of Physicians takes exclusive charge of the examination in medicine; the College of Surgeons or the Glasgow Faculty, as the case may be, of the examination in surgery; while the examination in subjects common to both medicine and surgery is conducted by a board, in which each of the bodies is represented.

It is proper to state that such arrangements as these were contemplated by the Medical Act and authorised by Section XIX., while those under consideration were sanctioned by the Medical Council on the 7th August, 1859.

Candidates for the double qualification having fulfilled the prescribed curriculum are subjected to two professional examinations. The preliminary examination for future students must be passed before commencing professional study, and in other respects be in accordance with the recommendations of the Medical Council.

*School of Medicine, Edinburgh.*—The lectures qualify for the University of Edinburgh and the other universities, the Royal College of Physicians and Surgeons of Edinburgh, London, and Dublin, and the other medical and surgical boards.

In accordance with the statutes of the University of Edinburgh, any four of the medical classes required for graduation, or two complete *anni medici*, may be attended in this school, each of which *anni medici* may be constituted by attendance on two of the six months' courses, or on one of these and two three months' courses. The regulations require that the fee for any class taken for graduation in Edinburgh shall be the same as that for the corresponding class in the University.

The whole of the education required for graduation at the University of London may be taken in this school.

The minimum cost of the education in this School of Medicine for the double qualification of physician and surgeon from the Royal Colleges of Physicians and Surgeons, including the fees for the joint examination, £90 4s., which is payable by yearly instalments during the period of study; whilst the minimum cost for the single qualification of either physician or surgeon, including fees for examination, is £80.

*Royal Infirmary, Edinburgh.*—Clinical instruction is given by the professors of the University of Edinburgh and also by the ordinary physicians and surgeons. Special instruction is given on diseases of women, physical diagnosis, and on diseases of the eye. Separate wards are devoted to fever, venereal diseases, diseases of women, diseases of the eye, &c. Perpetual fee, in one payment, £10; annual, £5 5s.; half-yearly, £3 3s.; quarterly, £1 11s. 6d. Separate payments for two years entitle the student to a perpetual ticket. No fees are payable for any medical or surgical appointment. These appointments are—Four resident physicians and four resident surgeons, who live in the house free of charge. Non-resident clinical clerks are appointed by the physicians and surgeons. Each surgeon appoints from four to nine dressers, the appointment being for six months. Assistants in the pathological department are appointed by the pathologist.

*Anderson's University, Glasgow.*—This is exclusively a teaching body. It offers excellent opportunities for acquiring a complete medical education, and the expenses are very much below those of any other institution. The fame of Glasgow as a place for clinical instruction has long been known, and this school affords the means of dissection, and the pursuit of other practical knowledge throughout the year. Hospital practice is attended at the Glasgow Royal Infirmary.

*Faculty of Physicians and Surgeons of Glasgow.*—This body has similar powers to those of the Royal College of Surgeons of Edinburgh, and its regulations for licence and fellowship correspond. It has also the same arrangement

with the Edinburgh College of Physicians for a double diploma. Preliminary examinations will be conducted by the Faculty in October, 1874, and in April, July, and October, 1875.

**THE STUDENTS' NUMBER.**—In the preceding columns we have endeavoured to present in as small a compass as is consistent with accuracy and utility a guide to those about to enter the various Medical Colleges of the United Kingdom for the first time; and also for those who, having gone through the recognised curriculum, are seeking entrance into our profession. In our task we have been ably assisted by several gentlemen, and also by the Deans of the various schools, who supplied us with all necessary information, to all of whom we tender our warmest thanks.

## Medical News.

**DEATH OF DR. ANSTIE.**—Death has claimed another victim from the foremost ranks of the profession in the person of Dr. Anstie, Physician to the Westminster Hospital, and well known by his writings on hygiene and therapeutics, and as editor of our excellent contemporary *The Practitioner*. Several cases of severe illness having occurred in the School of the Royal Patriotic Fund, at Wandsworth, Dr. Anstie was called in to advise as to the causes and means of prevention, as well as to the treatment of the sufferers. With a disregard of principles which he would most strenuously have insisted upon in others, he spent several hours on Sunday, the 6th inst., in these investigations, exposed to sewer-gas, and resumed them on Tuesday, the 8th. In the evening of that day he complained of being unwell, and, notwithstanding the unremitting attention of his friends, Dr. George Johnson and Dr. Burdon Sanderson, he died on Saturday of blood-poisoning, occasioned primarily from a puncture in the hand whilst engaged in a post-mortem on one of the pupils.

**HOSPITAL OUT-PATIENT REFORM.**—At a meeting of medical men called to consider this question on Friday last, it was moved by Dr. Ford Anderson, seconded by Dr. Joseph Rogers, and unanimously resolved :—“That, seeing that Poor-law dispensaries have been established throughout the metropolis whereby the wants of the indigent classes are fairly met, and that several provident dispensaries also exist, which, properly supported, would meet the requirements of those above them, this meeting considers that the time has arrived when the out-patient departments of the London hospitals may be materially curtailed with advantage to the community, and therefore urges on the subscribers to such hospitals the advisability of supporting a reform in this direction.”

**PRELIMINARY EDUCATION.**—Under the title of “Via Medica,” Dr. J. Baxter Langley has issued a work of great utility to the student; the chapters upon preliminary education are especially valuable, and the laws and customs of the profession are treated upon at great length. As may be presumed, the duties of the office of assistant in private practice are very various, and the relations between principal and assistant very complex. The book is published by Messrs. Baillière, Tindall, and Cox, a fourth edition of which is, we understand, in preparation.

## Marriages.

**MARSHALL—WARWICK.**—On the 8th inst., at St. Jude's Church, Englefield Green, Surrey, John James Marshall, L.R.C.S.I., &c., of Lambhurst, Kent, to Mary, eldest daughter of Benjamin Warwick, Esq., Englefield Green.

**BAKER—FENE.**—On the 10th inst., at Hargrave, Northamptonshire, Thos. Young Baker, Staff Surgeon, M.D. (late of the 57th Inniskilling), to Emily Augusta, only child of Lincoln Fene, Esq., of Leamington.

**HUNTER—PAINE.**—On the 9th inst., at St. Mark's, Myddelton Square, Dr. W. J. Hunter, fourth son of J. Hunter, Esq., of Kilrea, Ireland, to Anne, eldest daughter of H. Paine, Esq., of Clackgawell.

## Deaths.

- BATES.—On the 9th September, at his residence, No. 6 Stockport Road, Ardwick, Manchester, William Bates, M.D., F.R.C.S., aged 55.  
 BOWDAGE.—On the 6th September, at Wiveliscombe, Somerset, E. Bowdage, M.R.C.S., formerly of Crewkerne, aged 74.  
 CARTE.—On the 10th September, at Somerset Street, Portman Square, Edward Elliott, elder son of John Elliott Carte, M.B., C.B., Inspector-General of Hospitals, in his 15th year.  
 CUTLER.—On the 7th September, at New Burlington Street, London, Edward Cutler, F.R.C.S., &c., aged 77.

## Cleaning.

## Toxicology.

*Poisoning by Arseniuretted Hydrogen.*—Nine cases of poisoning by this gas (three of which were fatal) are reported in detail in the *Vierteljahrsschrift für Gericht. Medicin* (April, 1873) by Dr. Frost. These cases add materially to our knowledge of poisoning by this form of arsenic, since there are so few cases on record.

These persons were poisoned by inhaling the gas which was set free in a new process for extracting silver from metallic lead.

Some of the workmen were affected on the first day, others not till the second. All who were engaged in the operation of stirring were affected.

Those who recovered were affected during the first two days with loss of appetite, nausea, dizziness, gaseous eructations, sweet taste in the mouth, tremendous pain in the limbs, yellow appearance of the skin and conjunctivæ, narcotic sleep, from which the patient could be roused quite easily, a sensation of weariness in the legs, bloody urine and bloody stools. On the third day, the patients were found in a deep sleep, with jaundice, high temperature, pulse 100 and more, difficult respiration, tongue dry, and covered with a white coat. On being roused, the patients complained of an intense pain in the head, a dirty taste in the mouth, great thirst, and excessive pain during micturition. The somnolent condition lasted about five days; the pain during micturition lasted three or four days, when the urine gradually became free from blood, and the jaundice began to disappear in four or five days. The patients were confined to their beds for two or three weeks, and could not resume work for several months.

In the fatal cases, the same sensations in the limbs were perceived, and there were, also, headache, nausea and vomiting, fluid stools, bloody urine, jaundice, small and rapid pulse (150–160), delirium and stupor, from which the patient could be roused, and death, which took place in one case in a little more than twenty-four hours after the commencement of the symptoms, in another in about two days, and in the third case in five and one-half days.

At the autopsy, a dirty yellow colouration was noticed in the skin and all of the tissues. In one case, a garlicky odour was evolved from the fluid which flowed from the mouth and nose; a thin layer of bloody serum covered the arachnoid; the large vessels contained a little dark blood; the kidneys were congested, and dark-red in colour, and the bladder was empty, or nearly so. In one case, a patch of the mucous membrane of the stomach, about two inches square, upon the posterior surface had a dark grey appearance, and was easily raised from the sub-mucous tissue.

Arsenic was detected in all of the tissues and fluids which were submitted to analysis, in the stomach, blood, fluid which flowed from the mouth, kidneys, heart, lungs, and bronchi. Arsenic could not be detected in the urine of one of the patients who recovered.

*Acute Poisoning by the Chromate of Lead.*—Two fatal cases of acute poisoning by chrome yellow are reported in the *Vierteljahrsschrift für Gericht. Medicin* (Jan., 1874) by Dr. von Linstow. These cases occurred in children, aged respectively 1½ and 3½ years, and the poisoning was caused by sucking an unknown number of small, yellow substances, which had been used for ornamenting pastry, and which consisted of gum tragacanth and chrome yellow.

Chromate of lead, on account of its insolubility, has never been considered an active poison, and the fact that it is used so largely as a pigment for colouring not only ordinary substances, but also children's playthings, and even articles

intended for food, such as confectionery, &c., renders these cases of more than ordinary interest. The extent of its use in confectionery can be seen by an examination of the report of analyses of confectionery, by H. B. Hill (*Mass. State Board of Health Report*, 1873, p. 390). Thus 77 samples, both white and coloured, were analysed: 21 were coloured yellow, and in 17 of these the pigment consisted entirely of chrome yellow, in 2 partially; of 12 specimens which were of an orange colour, the pigment in 9 consisted entirely of chromate of lead, and in 2 partially; 7 specimens of green were examined, 6 of which contained chrome yellow mixed with Prussian blue in five specimens, and with Scheele's green in the other. Of the 77 specimens examined, 36, therefore, contained the chromate of lead.

The symptoms of poisoning did not commence until several hours after the ingestion of the chrome yellow, which took place between 9 and 11 a.m. Both children were taken sick at the same time (between 2 and 3 p.m. of the same day) with vomiting, which lasted for several hours. The vomitus was yellow in colour. There was great prostration and extreme thirst, but no diarrhoea and no pain. On the second day, both had a hot and red countenance, and were stupid. The younger, about twenty-four hours after the commencement of the symptoms, had a slight diarrhoea and convulsions, which continued until death, which took place in forty-eight hours. On the third day an erythematous eruption appeared on the chest and abdomen of the elder. He was dull and stupid, and the temperature in the axilla was 39.5°C. On the fourth day, the pulse and respiration became irregular, the breath extremely fetid, stupor and unconsciousness came on, and the patient died five days after the ingestion of the poison.

After death the mucous membrane of the stomach and duodenum was found swollen and loose, so that it could easily be raised from the sub-mucous tissue; it was inflamed, as was also that of the œsophagus, throat and larynx. In some places, the mucous membrane of the stomach and duodenum was entirely destroyed, and in one spot perforation had taken place showing that the chrome yellow had a corrosive action. These appearances were probably not caused by the chromate of lead, as such, but by soluble compounds formed after the pigment had lain in the stomach some time, and had been decomposed.

Besides the above appearances, there were found also hyperæmia of the brain and its membranes, beginning fatty degeneration of the liver, commencing icterus, hyperæmia of the kidneys, suppurative pyelitis, and a softened spleen; conditions which are often seen after death from poisoning by other corrosive poisons.

The number of these yellow ornaments ingested by the children could not have been more than six, since only seven were given them to play with, and one was afterwards recovered. If each child had eaten three of these, the fatal dose was less than 0.01 grm., or between  $\frac{1}{2}$  and  $\frac{1}{3}$  of a grain of the chromate of lead.

*The Action of Alkaloids on Albuminoid Substances.*—By M. Y. Rossbach (*Neues Repert. für Pharm.*, xxii. 512-544).

Experiments were undertaken to explain the action of the alkaloids in diminishing the oxidation in the body, and it was found that, by the addition of neutral salts of the alkaloids (salts of quinia, strychnia, veratria, morphia and atropia were used) to solutions of egg albumen, the temperature required for the coagulation of the latter was lowered very much; that solutions so dilute that no turbidity was produced by boiling the aqueous solution became turbid at 59°–62° C., when a trace of a neutral salt of an alkaloid was present; that more turbidity was produced by heating solutions of albumen if an alkaloid were present than with the simple aqueous solution; and that this altered coagulability is due to a true chemical combination taking place between the alkaloid and the albumen. The compound formed has the properties of an alkaloid. No combination takes place between 1° and 10° C.

The same results were produced with the blood serum, and the juice of muscle, and it is concluded that dissolved albumen is converted by the alkaloids into a less soluble substance, which is a compound of albumen with the alkaloid.

The alkaloids were also found to unite with hæmoglobin, but they do not prevent it from acting as an ozonizer. They do, however, seem to bind the oxygen more closely to the hæmoglobin, so that it is not given up so readily to other bodies.

# The Medical Press & Circular.

"SALUS POPULI SUPREMA LEX."

WEDNESDAY, SEPTEMBER 23, 1874.

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## A Course of Lectures

ON THE

### NATURE AND TREATMENT OF DEFORMITIES OF THE HUMAN BODY,

DELIVERED IN THE MEATH HOSPITAL, DUBLIN, BY

LAMBERT H. ORMSBY,

Surgeon to the Hospital, and Demonstrator in the School of Surgery, Royal College of Surgeons in Ireland.

#### LECTURE VII.

#### DEFORMITIES AND DISTORTIONS OF THE SPINE.

*Introduction—Number of Works published on the Subject—Great Difference of Opinion as regards Causes and Treatment—The Mistake that is made by keeping entirely to one Line of Treatment—The Anatomical and Physiological Features of the Vertebral Column—The Curves of the Spine—The Spine studied as a Wonderful Piece of Mechanism—Anterior, Posterior, and Lateral Curvature: Causes, Symptoms, and Treatment—Mechanical and Non-Mechanical Method—Conclusion.*

IN the whole scope of medical and surgical literature, I suppose no subject has received so much attention as the subject before us. Judging from the number of works, monographs, lectures published from time to time on curvature of the spine, and spinal distortions generally, the fact of the matter is, that every surgeon taking up the subject of orthopedic surgery as a speciality thinks it is necessary and required of him to write some treatise, or communicate his ideas in some published form, as from his experience and study, directed, as it must be, constantly in one direction, it is most likely he will, firstly, by practical demonstration, and secondly, by reflection and mature consideration, arrive at views more true and practical as to the causes of such distortion, and more useful as regards the treatment of such cases than those who are engaged more in general practice. In this, like many other subjects that have been repeatedly written upon, various authors who have laboured with great assiduity in the same path differ

considerably in their ideas and theories of not only the causes of distortion, but also in a very wide degree as regards the treatment; and I can quite well understand the feelings of difficulty and doubt which would naturally fill the mind of one not very conversant with the treatment of such cases, but happening to meet with an isolated one in practice, and wishing to treat it for information's sake, consults two authors diametrically opposed in view and treatment to each other; for, unfortunately, in my opinion, authors are too positive as regards the efficacy of the principle they promulgate, and rather inclined to make more of the advantages of such and such a plan of treatment than frequently really exists; and not only that, they are so wedded to their own method that any other in their hands is scientifically incorrect, and in some cases are not very sparing or complimentary in their remarks of disapproval, and decry in the strongest manner any plan differing from their own. This, after all, may seem very trivial in detail, but, at all events, it cannot do much in a scientific point of view, or practically benefit cases, or enlarge the information we wish to possess on this important subject. To educate our minds with the idea that there is but one settled undeviating line of treatment, suitable with slight modifications for all classes of cases, must seem to the most common-sense person who reflects at all as perfectly erroneous, for I have before-mentioned, when talking of other deformities, that each case stands on its own basis, and, whether in circumstances, history, or present symptoms, always differs slightly from other comparatively similar cases, and as the symptoms differ, so must the treatment vary, and a fair trial of all modes and plans recommended sometimes produces the happiest results.

To aid you in studying the abnormal curves the spinal column sometimes assumes, I conceive that a brief anatomical description of the normal physiological curves would not be out of place.

The vertebral column is the foundation and framework of the whole skeleton; at its summit, most beautifully poised, is the cranium; from its side we have the ribs articulating; and below it is substantially supported by the sacrum and bones of the pelvis; it is composed of a series of articulating bones called vertebrae, twenty-four

in number, connected by strong ligaments and fibro-cartilage, allowing of slight motion as regards each other, but of considerable flexibility as regards the spine as a whole. This flexuous bony column is not only a pillar of support, but also affords protection to the spinal cord, which it encloses in a perfect osseous canal, thus defending it from injury on all sides. These twenty-four vertebrae are beautifully arranged one above the other, with thin plates of fibro-cartilage, called intervertebral substance, interposed between the bodies of each, to act as "buffers," to prevent and break any shock that may be received at either extremity of the column; these vertebrae admit of motion, and remain ununited to an advanced period of life, though they may become ossified at a much earlier period by disease or other causes. These are placed on the sacrum, which is composed of five bones, at one time perfectly separate, but in adult life all fused together to form a triangular-shaped bone, tapering from above downwards, to the inferior extremity of which the coccyx is united, which was composed of four separate bones, but as age advances are perfectly united to each other, and also to the sacrum. The length of the spine varies, but on an average it measures about two feet three or four inches, and is somewhat proportionate to the height of the individual. Viewed from above downwards with a cursory glance, this column appears to be divisible into two well-marked pyramids, joined together at their bases, the upper one beginning from the second cervical to the sacrum, the lower one commencing at the sacrum and ending at tip of coccyx. The upper pyramid, on examining it more closely, can be divided again into three more—viz., 1st, beginning at second cervical, which is the apex, and ending at last cervical; 2nd, beginning at first dorsal and ending at the fourth dorsal (this pyramid is inverted); 3rd, beginning at fourth dorsal and ending at last lumbar. This division is artificial; but on close examination the spine has a certain amount of natural division; so far as it increases and diminishes in size at those stated points it may also have some practical importance about it, for where the spine is smallest, so is it weaker, allows of greater mobility, and more prone to distortion and disease, which is in the middle dorsal region, motion being greatest in the cervical and dorsal region, and very limited in the lumbar region. On again viewing the spinal column from cranium to coccyx, we find it divisible into four well-marked physiological curves—viz., the cervical, dorsal, lumbar, and sacral. These curves have great practical importance, for in many cases an abnormal curve is nothing more than a great increase of the physiological curve in the situation.

There is a difference of opinion as regards the causes of these physiological curves; some anatomists assert that it is naturally essential that the bony column should have these curves, and is a great provision of design for the purpose of supporting the superincumbent weight of the head and shoulders, and also acting as species of elastic and flexible springs, by frequently changing the line of gravity from the upper part of the body to the lower extremities; it is also due to the thickness of the bodies of the vertebrae and the intervertebral fibro-cartilaginous substance in the different situations, and the tension and elasticity of the spinal ligaments, together with contraction and action of the muscles, which must be in action when the body assumes the erect posture. In infants these curves are not required, as they are so constantly lying in the horizontal position, but as they advance in growth and years these curves become gradually developed, convex forwards in the cervical region, concave forwards in the dorsal region, convex forwards in the lumbar region, and concave forwards in the sacral region. It seems as if naturally one curve produces a compensating curve; so the same thing is found to occur in the curvatures of disease. The measurements of the curves are calculated as follows:

The cervical curve having 28 degrees of a circle and  $6\frac{1}{2}$  of a radius, beginning at the odontoid process and ending at about the second dorsal vertebra.

The dorsal curve having 42 degrees of a circle and

$12\frac{1}{2}$  of a radius, beginning at second dorsal and ending at lower edge of eleventh dorsal vertebra.

The lumbar curve having 80 degrees of a circle and  $5\frac{1}{2}$  radius, beginning at the middle of the last dorsal and ending at last lumbar vertebra.

As I said before, that these curves are not present in infants, but become gradually developed as the infants advance in years, is a fact; but they are seldom placed in the position to develop those curves, that is, in the erect posture. Examine an adult patient lying on his face, and the curves will not be so apparent, which proves that the muscles, ligaments, and superincumbent height exert a powerful influence in producing such curvatures, at the same time they are made a more necessary requirement as the important viscera in the thoracic, abdominal, and pelvic cavities become developed and require space for further development. If a small thin piece of flat steel be held in the hand and the weight of the hand applied to the superior extremity, and the other extremity placed on a firm resisting block, the pressure will cause the steel plate to assume various curves either backwards or forwards, and if the pressure be applied with the steel plate held laterally a lateral curvature will be produced. Surely such an easy experiment, though simple as it may appear, explains to a certain extent how abnormal curvatures are produced from disease.

The spine, as a piece of mechanism, is certainly most wonderful, and should ever be the source of great admiration to the thoughtful anatomist when he considers the number of important offices it fulfils in the most perfect manner. It is strong enough to support and preserve the erect position of the body; it is flexible to allow the body to assume such a varied number of attitudes; and has in itself an inherent power by its flexibility and elasticity to regain its normal position when required; its strength also depends on the peculiar way in which each vertebra is joined to the other, and the great importance of the intervertebral fibro-cartilage, which is for the purpose of breaking shocks, which would naturally act most injuriously to the brain if transmitted by a continuous rigid bony column; also the curves are found to increase the strength of the column, and allows it to bear a greater amount of superincumbent weight; it protects the spinal cord free from injury in the most perfect manner, and this spinal canal gives lightness without diminishing strength, as found in other bones of the body. There is a natural lateral curve which we find in the middle of the dorsal region, with its concavity to the left side. Some anatomists assert it is caused by the pulsating action of the thoracic aorta; others say it is due to the action of the right arm, which is more often used than the left. With such remarks, by way of an introduction, we may, without further observations, consider the abnormal conditions of the spine.

(To be continued.)

## REPORT ON SYPHILIS.

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### DR. FOURNIER ON THE DIAGNOSIS OF TERTIARY SYPHILITIC AFFECTIONS OF THE GENITAL ORGANS.

In a lecture delivered at the Lourcine Female Venereal Hospital of Paris (*France Méd.*, August 8th, 1874) Dr. Fournier thus speaks:—

The affections we have just described by the name of genital tertiary syphilitic affections present several objective resemblances with a certain number of lesions which are quite foreign to them. These resemblances may even be so well marked in certain cases as to give rise to errors in diagnosis easily to be made.

Now, these errors here may cause consequences of two kinds:

On the one hand, regrettable practical consequences;



one lesion is taken for another, and the treatment of the latter is applied to the former. On the other hand, doctrinal consequences, which, as a species, are of greater importance, because they conduct either to mistakes as to the characters that are symptomatic, or about the evolution of such or such a venereal type, or even to the assimilation of opposite pathological types.

You will soon see what I am now alluding to.

Well, it is a curious fact that the two morbid entities with which tertiary syphilitic affections of the genital organs run the most risk of being confounded are the two species of lesions commonly designated by the name of chancre—namely, the simple chancre and the syphilitic chancre.

It is then, first of all, with the simple chancre and the syphilitic chancre that we must make the differential diagnosis with the lesions we are now speaking of.

Let us first speak of the simple chancre. Here, gentlemen, the error is easily committed. Certain ulcerated syphilitic affections, indeed, simulate the simple chancre in a surprising manner: to such a degree that the differential diagnosis is often very difficult to establish between these two lesions.

Of all venereal accidents, I state it as a fact that there are no two which are more alike in certain conditions than tertiary ulcerating syphilitic affections and simple chancres.

The distinction of these two diseased types is not only a problem hard to solve, it is—and I do not exaggerate in saying so—the most difficult problem in syphilography. There is not, assuredly, in all syphilis, a point more delicate and embarrassing than this.

Indeed, there are numerous reasons why this error should be committed. Observe how many common features there are between these two lesions, the simple chancre, and ulcerating tertiary syphilitic affections.

Firstly, identity of position, very habitual localisation of these two lesions on the same point on the genital organs.

In the second place, incontestable analogy of the apparent objective symptoms between these two lesions: in both, lesions consisting in ulcerations more or less hollowed out, attacking the cutaneous or mucous derm; generally rather circumscribed; equally susceptible of extension; suppurating rather abundantly; sometimes having no effect on the glands, &c., &c. There is, very evidently, an analogy of objective characters, well fit to deceive us, and excusing errors in many cases.

On what basis, however, can we attempt to institute a differential diagnosis between these two orders of lesions? By four orders of symptoms, which are the following, and which have not all, as you will see, an equal value.

1. *Objective Characters.*—The simple chancre has, in general, more abrupt edges, sharper, more neatly and vertically stamped out than those of the ulcerated tertiary affection.

The simple chancre presents an areolar and chequered base; the ulcerated syphilitic affection presents a base smoother and more even.

The simple chancre has a yellower colour than the tertiary ulcer, which is yellowish, grey or reddish.

Such characters, to be justly appreciated, require a certain familiarity with venereal diseases, an exercised eye; for it must be confessed, there are differences only of more or less objective shades, rather than differential symptoms properly so-called.

2. *Second Sign.*—Simple chancres are generally more multiple, and especially surrounded at their circumference with simple chancres smaller in size, commencing, and consecutive, developed by neighbouring inoculation, whilst there is absence of the like peripheral lesions in ulcerated tertiary syphilitic affections.

Do you, indeed, remember gentlemen, what I said to you last year about the simple chancre? It is a chancre which is eminently contagious, and the pus of which infects all it touches. When not dressed, this chancre produces around it new chancres, by inoculation of the neighbour-

hood. The simple chancre—pardon me the expression—makes little ones around it, and these new chancres, when born, and young, are necessarily less advanced in their evolution, less large, shallower than the parent chancre, the adult chancre which has begotten them. This is what made M. Ricord say that the simple chancre “lives in the family, surrounded by its young.” Nothing of this kind naturally occurs with the ulcerating syphilitic affection, which is not inoculable, and does not produce any consecutive lesions around it; it makes no *little ones* on the zone of tissue around it.

There thus exists a differential sign very easily appreciable and very characteristic. When this symptom exists it is final, and the diagnosis profits by it. But it does not always exist, because there are some careful patients who dress, isolate, and sequester the chancre as soon as it appears, and who thus take away its powers to cause fresh ones in its neighbourhood. This is an excellent symptom, in short, but not a constant one.

3rd. *Condition of the Glands.*—With the simple chancre one of two things happens—either there is complete absence of enlargement of the glands, or there is a bubo, acute, isolated, inflammatory, acutely inflammatory, most frequently suppurating, and sometimes degenerating into a true glandular chancre. With these other syphilitic ulcerations there is no enlargement of the glands, at least in the enormous majority of cases.

This is, again, a good symptom to look for, but inconstant, since in the two cases the affection of the glands may equally be wanting.

4. *Inoculation.*—Lastly, when the collective symptoms preceding do not suffice for diagnosis, inoculation presents itself as the last analysis, and it presents itself with perfect guarantee for truth; it offers a formal criterium, absolute and clearly marked.

Thus, with the simple chancre there is positive inoculation, never wanting if the experiments have been well conducted; with the ulcerating syphilitic affection the inoculation is negative.

It is to inoculation that we are forced in certain cases to have final recourse, when we have interest in making a formal diagnosis, and it is that, and that alone, which gives certainty in such circumstances. Unfortunately, we have not always the power of trying the experiment, either because the patient refuses, or that we fear for the results. Besides, in practice, even in these cases of doubt, it is not always indispensable to have recourse to inoculation, for the treatment of the two lesions, is almost the same; at any rate, what suits locally the one cannot hurt the other; and as to general treatment, the phenomena which have preceded the lesion suffice, with rare exceptions, to decide whether there is need or no to administer it.

I have just insisted at length, at great length, on the differential diagnosis of the ulcerative syphilitic affection and the simple chancre. Is there, then, gentlemen, such an important interest in differentiating these two orders of lesions? Yes, certainly there is. This differential diagnosis has a great interest, a capital interest, an enormous scientific interest, shall I dare to say so?

And why? Judge of the consequences which may result, and which necessarily result from the confusion made between these two diseases.

What are these consequences?

First, there are symptomatic errors, consisting in this: characters of a syphilitic accident applied to the simple chancre and reciprocally. It is, for instance, thanks to such errors, that persons have accorded to syphilitic lesions the faculty of determining auto-inoculations of a positive kind, so as to produce the simple chancre by inoculation, to determine suppurating buboes with inoculable pus, chancrous pus &c. . . . all properties which, you know, belong only to the simple chancre, and essentially characterise the simple chancre.

As other consequences, there are also errors as to the mode of transmission of the viruses, in experiments with inoculation or in researches on the confrontation of patients. For instance, suppose an ulcerative syphilitic affection

transmits a contagion : what it transmits will necessarily be syphilis. Now, suppose that it have been mistaken as to its nature, and taken for a simple chancre—it will appear in these conditions to have transmitted syphilis, although not of syphilitic nature, and the confused observer will register this : syphilis transmitted by a simple chancre.

Now, this error is not in the condition of simple hypothesis ; it has been made and made again several times. I accuse myself as among the first to have committed it, and even to have printed it, when I was not so enlightened about the existence of these ulcerating syphilitic lesions, which may put on the aspect of simple chancre.

And what is, gentlemen, the consequence of the errors thus committed with regard to symptomatology. It is nothing less than the confusion of these syphilitic affections with the simple chancre ; the assimilation of the simple chancre with syphilitic accidents ; the reintegration of this among the symptoms of syphilis—that is to say, the dualistic doctrine denied and misunderstood, refuted by material errors and clinical mistakes ; the syphilitic chancre misunderstood as regards its morbid entity ; the unicist doctrine restored, although it only states an error ; the labours of a whole generation, of Ricord, Bassereau, and others called in question ; conquests of modern science, especially of the French school, abandoned and sacrificed ; and, in short, scientific relapse, relapse towards the errors of the past, which were justly warred against. Such is the result to which the confusion of ulcerated syphilitic affections has conducted ; and these results explain to you, gentlemen, whether I ought to insist before you on making this a capital point in our science or no.

*Syphilitic Chancre.*—Another diagnosis, and that a most unexpected one, next presents itself for discussion. Tertiary syphilitic affections—do not be astonished—may be confounded with the *indurated chancre*.

Of course, it is not every tertiary syphilitic affection which, indifferently, may be confounded with the indurated sore ; it is only certain of these which, in given conditions, approach a good deal in objective symptoms to the initial symptom of syphilis, so as to run the risk of being confounded with it.

And, first of all, gentlemen, do not imagine that I am imagining a difficulty between two diseased conditions very distinct in character, or that it is a forced approachment that I am making for pleasure—a theoretical confusion which could not be practically made. Far from it. The diagnosis we are about to discuss is one of those met with in *practice*. The confusion I am about to point out is among the number of those which are easily committed, and which have been committed more than once. On several occasions tertiary syphilitic affections have been taken for indurated chancres, and this error, indeed, is very difficult to avoid in certain cases, as you are about to see.

But how, then, can tertiary syphilitic affections be taken for indurated chancres, and, above all, what are among them the ones which lead to such confusion ?

The tertiary syphilitic affections, which come near enough to the indurated sore to be mistaken for it, are those which are at once circumscribed, indurated, and solitary. By this triple character, indeed, they have a marked analogy with the infecting chancre, which has for its habitual attributes, as you know, the being a lesion generally circumscribed, indurated at its base, and solitary.

There are some tertiary syphilitic affections which present themselves with this triple attribute with this triad of accidents.

Remember, in fact, gentlemen, these curious lesions of the penis, of which I spoke to you at our first réunion, and which commence by a small dry callus, to terminate by ulceration of this callus. I told you that these little tumours have a character of being generally well circumscribed, very clearly limited, and of forming in the midst of a healthy tissue knots of induration of a rounded form, usually of smallish size, comparable to an hazel-nut on an average. I added that these tumours were often solitary ; that they occupied most habitually the fold of

the gland and prepuce ; that after resting in the state of dry indurations a certain time they afterwards ulcerated, whilst they remained indolent, inflammatory, indurated, &c.

Well, do you not find in this the collection of characters required to establish between these lesions and the simple chancre an apparent analogy ?

It is in this way that certain gummy tumours of the genital organs take on the appearance and marks of the indurated sore, and resemble it enough to create a very simple confusion between these two lesions. These gummy tumours are true indurated chancres apparently to the eye. They look strangely like them at first sight, and the more as we analyse their different symptoms. And in this way I think they well deserve the name of pseudo-indurated chancres, under which I long ago described them, with the desire of calling attention to them, and of pointing out the kind of errors to which they may give rise.

If this be the case, if certain tertiary syphilitic affections may be so like the indurated sore as to be confounded with it, it is then important, and important for various reasons, as you will soon see, to seek how these lesions may be distinguished. Let us, then, see what signs permit us to differentiate them.

Is it firstly in the objective symptoms, in the external characters of the lesion, that we shall find the elements of this diagnosis ? Not at all, since the property of these accidents which we are speaking about is to assume the characters and physiognomy of indurated sores.

All that we should here find, in attempting to give in detail the minute characters of the lesions, would consist in shades but little significative, such as the following : Ulcerating syphilitic affections presenting edges less abrupt and less sharply cut than the chancre ; a more elastic base, and less evidently cartilaginous than true induration ; a base more yellowish, less brown, and differing from the tint of muscle which so frequently characterises the syphilitic chancre, &c., &c. But there would only be very secondary symptoms, and besides, requiring caution.

A better sign, and indeed, a good one, may be borrowed from the initial form of the lesions.

The chancre, in fact, commences by an erosion which indurates ; tertiary lesions which resemble them commence by indurations which ulcerate. The pathological process is, then, reversed in the two lesions.

But it is very rare that we arrive soon enough to discover this evolution, which, if well and duly observed, would be characteristic. We have only to judge of it, the information and observation of the patients, and on this very delicate point the observation of patients is more than subject to error. Most frequently, then, nothing is to be got from this particular sign.

The elements of the differential diagnosis we are studying are not, or very rarely are to be found in the two preceding considerations. They reside elsewhere, if they exist. Where are they ?

In my opinion, and all things being considered, the sole considerations of value which here form the diagnosis reside in this : 1st, the condition of the glands ; 2nd, concomitant manifestations ; 3rd, ulterior evolution.

1. *State of the Glands.*—This is an excellent symptom in general, but only in general, and not absolutely or constantly.

With the syphilitic chancre, in fact, there is constant affection of the glands, which is never wanting. M. Ricord has been able to say with reason, "the bubo is the faithful companion of the syphilitic chancre ; it is its forced satellite." Besides, with the chancre the affection of the glands is well marked, with the characters which I have so many times pointed to and placed under the finger, *i. e.*, multiple glandular affection, forming true pleiads, hard affection of the glands, indolent, and often also in both inguinal regions, affecting equally or unequally both sides.

(To be continued.)



## CLINICAL MEMORANDA.

Reported by JOHN W. MARTIN, M.D.,

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THE following brief notes of a case in which complete amaurosis of the right eye accompanied fracture of the nasal portion of the superior maxilla, together with the palate, and most probably the lachrymal bones, will, I think, prove interesting and be worth placing on record.

Michael Wall, æt. 60, a labourer, in the course of a dispute with his son-in-law, received a blow from a stone, which inflicted a severe lacerated wound, involving the upper eyelid on the right side and the bridge of the nose, also the fractures already enumerated.

On the 24th of February, 1874, the wound being nearly healed, he presented himself, complaining of severe pain in the orbit and temple, right side, complete loss of sight and lachrymation, the tears escaping over the cheek. There were no symptoms of external inflammation. The inner canthus of the eye was displaced downwards and outwards. Examination with the ophthalmoscope revealed well-marked congestion of the retina as compared with that of the unaffected eye. Motions of both eyes normal. Bowels acting. General health good.

R. Solution hyd. bichloridi, ʒi. ;  
(Strength, gr. i. to ʒi.)  
Tr. aurantii ad ʒij. M.

One teaspoonful to be taken three times a day in a little water, after meals.

Applied strong tinct. of iodine to the temple.

Friday, 26th.—Headache diminished; sight returning; objects seen indistinctly; when looking straight before him is unable to see anything placed above the level of his eye. Retinal congestion diminished.

February 28th.—Range of vision increased; objects seen more distinctly. Lachrymation and headache diminished.

March 4th.—Treatment altered to biniodide of mercury in mixture. Improving.

March 12th.—Ordered mist. potass. iodidi c. cinchona. Subsequent history one of steady improvement and recovery of sight.

The points of interests are the complete amaurosis dependent on retinal congestion and the rapid and steady improvement when placed under mercurial treatment.

## INDIAN MEDICAL NOTES.—No. XXV.

(FROM OUR SPECIAL CORRESPONDENT.)

SIMLA, August, 1874.

## A POETICAL EXTRACT.

RECENTLY, at lunch, meeting Colonel Gordon and Dr. Bellew, just returned from Yarkund, they mentioned that the cold was twenty-six degrees below zero at 18,500 feet, when bed-clothes were welded together by frozen perspiration, which the heat of the body would not thaw, and as ink and colours solidified, their notes and sketches had to be pencilled. Excepting the accomplished naturalist, Dr. Stolicza, who died of symptoms allied to those of sun-stroke, depending on cold and rarefaction of the air, all during the year enjoyed excellent health, whilst living on sheep, green tea, occasionally horse-flesh, very little liquor or tobacco being expended. Last night, after dinner, it was necessary to visit a case of infantile remittent fever, far down in a valley, just as you would descend from a lofty cliff to the beach below, the dark zig-zag paths leading

occasionally past native habitations. Oh, the smell—enough to knock down the most hardened medical officer of health. Imagine a slice of Bethnal Green or Seven Dials, between any two points—say between Kemp Town and the Grand Hotel at Brighton: even then no idea can be formed of the bazaar at Simla in the centre of the Mall, the two ends occupied at intervals by residences, now and then a shop exorbitant. There are houses on the ledges above, as well as on various ranges, steppes, or plateaux in the valleys below; those above have a mixture of good air and clouds, and are surrounded by lofty firs and graceful cedars, the peerless deodar, the glory of the Himalayas, the tree rhododendra, covered with rare ferns or feathery mosses, while, it stands to reason, others in the ravines below must put up with torrents, waterfalls, miscellaneous drainage and drinking water flowing sociably down together to the valleys. The geological formation consists of metamorphic rocks, indurated clay, slate, grit, conglomerate, limestone, siliceous schists, mica, garnet, quartz, and either china clay or hydrated silicate of alumina, some say meerschaum. The station ranges from 5,000 to 8,000 feet above the level of the sea, about 56 miles from the plains by the new road, whose gradient of three feet in a hundred permits driving: Meerut to Umballa, by rail, 124 miles; next to Kalka, the foot of the mountains, 38 miles by road; the remainder of the journey by the old road—41 miles—can be walked, or ridden, or carried over by ambulance bearers, your luggage conveyed also by hand. Most persons prefer the driving on the other road, but for a man with liver, a lady advanced in pregnancy, or a three-months' infant all but moribund (my travelling companion) the old road is suggested, taking it easy, halting at appointed stages, one, for instance, near the Laurence Asylum for soldiers' children, concerning which, more anon. Under any circumstances, the journey is very trying to the congested liver or the displaced gravid uterus. The drive from Kalka to Simla, by relays of ponies, occupies hours, and costs twenty-four shillings; the scenery, fruits, flowers, vegetation, have been alluded to previously, the honeysuckle, and the wild red pomegranate specially attractive. There are 300 European houses, chiefly of wood, with shingle roofs, ranging from 400 to 3,000 rupees for the year, to accommodate 1,400 Europeans; the native population, 13,000, housed in their own fashion; the station occupied not fifty years. The rainfall ranges between 50 and 70 inches, and, according to the interesting guide, to stray Blue-books, to short papers by Drs. Paske and Ross, to personal inquiries and observations, the other points are as follows. I was going to visit the sulphur lake of Nyna Tal, but the sick family of a kind friend required urgent medical attendance to Simla—*Veni, Vidi, Vici*—so far as tinkering up the patients, the hill women, who drink water, being splendid wet-nurses. Bring plenty of money, the best of clothes, uniform, dancing pumps, wraps and waterproofs, stay at Harding's Hotel at £10 a week, call, after inquiry, on the best and the nicest people, who one and all extend unbounded hospitality, and what with Badminton, lunches, dinners, riding parties, pic-nics, occasional dances, the time will fly. The medical officer may also have patients to visit—anxious cases mine at present are—and you may be called into consultation, enlisted by a fee. The great thing is to make friends who may eventually assist the sole object of life in India—a billet in the Hills. The plains have been already described. Contrast the temperature of Simla for each month of the year: January 40, February 44, March 53, April 61, May 66, June 80, July 75, August 73, September 70, October 67, November 52, December 46. March and May are stormy months; May and June dry; then rains until September, followed by glorious crisp, bracing weather, when the exhilarating air is sharp and clear, when the snowy range appears (22,000 feet), and the hills of blue and green are relieved by wild geraniums, anemones, primroses, violets of various hues and shades Napoleonic—in fact, it sets one crazy to talk of these things. Trees are my favourites, and as in the agonies of

composition the eye in a fine frenzy rolls, the deodara cedars outside and the cool splash of the waterfalls drive medicine out of mind this glorious August morning.

Dr. Ogilvy, Secretary to the Burra Lord Doctor Sahib (as the surgeon-general is termed), has some wonderful vegetables, besides brilliant sweet-scented flowers. "Nothing like hunting," said Mr. Jorrocks; "Nothing like gardening for pleasure, peace of mind, and recreation," replies many a doctor besides Smee. The water, originally pure, starts from twenty-seven springs, eighteen permanent, some on a lower level than many houses, some in water-courses, others bubbling or trickling out of the sides of the lofty rocks, flow over organic refuse, stable manure, ordure, filth about houses, carcasses of animals, and thus down the valleys the drainage and water-supply socially mingle. At one time it was said that 4,000 natives used nooks and dells for latrines, and even now, when matters are improved to the utmost of practicable endeavour, the habits of the water-carriers are by no means immaculate. Widening roads, flushing drains, building ventilating shafts, repairing rotten, damp, tumble-down habitations, enforcing conservancy, regulating the butchers and their slaughter-houses, the authorities are not idle. The old grievances were crowding of trees, and of native hovels, indifferent drains of wood, or lime on slopes through spongy soils, damp houses built against banks, indifferent bedrooms, dark, damp, badly floored, and mostly situated on the side of the bank, noxious smells, dirty servants' houses, unchecked deciduous vegetation, bad meat. According to Paske, the sheep, fed on offal, were killed and dressed near drains; the bread, made in hovels, was mixed with spices and honey instead of obtainable yeast, and a Mahomedan burial-ground in a clay soil had a drinking-tank at some distance below. In the plains a dead animal soon dries up; in the hills the decomposition is slow. In 1867 the 67 Government clerks, with families of 103, had an average sick list of 8 per cent. from April to September, especially during the rains, when malarious mists are trying; formerly, too, the want of sanitation induced diarrhoea, dysentery, scurvy.

This very morning have I been prescribing for Simla trots, a painless, prolonged, ochrey diarrhoea, remedied by podophyllin, followed by acids or pernitrate of iron; if neglected the patient may have hepatic complications, or a chill just now will induce pneumonia, or infantile remittent, complicated with bronchitis. For the last five nights it has been my luck to watch two dangerous critical cases, and as the damp rhododendron wood refused to burn, preferring to smoke out the sick-room, and the doors had to be closed against the rain and the damp mists which permeate the poorly-cemented walls, the many nights spent at sick-beds of humble and well-to-do folks elsewhere crowded reflections. Rheumatism, neuralgia, and hepatic ailments affect specially the careless, who sit up late at night, eating or drinking incautiously, or who go in for violent exercise too soon on arrival. Cases of advanced syphilis, or phthisis, of organic cardiac mischief, or progressive hepatic disease, in old subjects, sometimes do well—more frequently lose ground; still, every case must be taken on its own merits, for the curative action of the Himalayas is unbounded—something passing conception. Ascending from the plains may induce intestinal chills; the descent from hills to plains brings back fever, deafness, abdominal cramp. The gay Lotharios who may admire the handsome Cashmere Cyprians, with raven tresses, coal black-eyes, fair faces, supple busts, and attractive limbs, ornamented with silks of green and gold and gaudy tinsel, should remember that the C. D. Acts are not in force, and that syphilis in Protean shapes is ever rife. Goutre very prevalent. A volume might be written about Simla, indeed, ought to be, considering it is the Brighton of India; but, really, the civil surgeons and others have nothing to go upon, as they are only here two years—like the needy knife-grinder, they have no story to tell; no statistics, no neat, terse, topographical account can as yet be met with. Printed analyses of water are of very little assistance. There are novels and sketches, the same old weary tale of dissipation, flirta-

tion and folly, of racketty invalids, loafers, impostors, schemers, gamblers in former times, and many a story ending in sorrow, ruin, and shame. It is a delicate, dangerous subject to touch upon. Every man of the world knows that in England a great deal more goes on than people talk about; but here a new bonnet, your means, character, and food for dinner are well known, and husbands ill, absent, or negligent, may often have to blame themselves if their pretty wives are pestered with attentions by idle bachelors. If you ride with Mrs. Jones, or dance frequently with Miss Brown, most innocently, look out for tattle. But, really, the exciting air of the hills prompts many people sometimes to lose their heads and make fools of themselves—a kind of disease not included in the nomenclature of the College of Physicians. As said before, the fair sex have a deal of suffering or anxiety about their children—suffer from leucorrhœa, menorrhagia, chlorosis, uterine displacement, and diseases no fault of their own, very difficult, indeed, at times impossible, to relieve, until at last they give up all hope of improvement, and, sick of doctors, they conceal their pain. The voyage home alone may effect a cure, claimed by the London specialist. Out of the *Pioneer* is the enclosed clever poetry extracted; I hope it will not be considered unsuitable for insertion at this stage of the "Notes." As Toole, the inimitable, after a dreadful pun, used to say, this really shall not occur again.

#### THE WORSE LAND.

I hear thee speak of a place in the Hills,  
Where scandal or gossip each moment fills;  
Father, O! where is that heavenly place  
Where women go at a terrible pace?  
Is it where the teeming tea-plant grows,  
Where sleeps Darjeeling beneath the snows?  
Not there—not there—my child.

Is it where the feathery deodars rise  
Like Fairy giants 'neath Simla skies?  
Where green young griffs in glittering lace  
In the hearts of the fair may find a place?  
Where strange, bright, foolish, frivolous things  
Have waists like wasps—but with double stings?  
Not there—not there—my child.

Is it far away in Mussoorie old;  
Whence many a shocking tale is told,  
Where garish beauty and tinsel shine  
Like diamonds fresh from the secret mine—  
Where pearls and rubies and riches grand  
Weld all together the motley band?  
Not there—not there—my child.

Thine eyes dare not see it, my gentle girl,  
Thine ears must not bear its incessant whirl,  
Dreams cannot picture its orgies wild,  
Parties on Sunday nights—my child,  
Time shall yet for an answer call,  
From the cloudy regions of Nynee Tal,  
For—'tis there—'tis there—my child.

## Hospital Reports.

### THE WESTMEATH INFIRMARY.

#### Successful Operation for Strangulated Inguinal Hernia.

RICHARD D—, a labourer, æt. 54, was admitted into the Westmeath Infirmary, suffering from strangulated inguinal hernia of right side, on June 16th, 1874.

He had been suffering from this hernia for some years, not knowing what it was, and the dangers attached to it, as well as from its never having troubled him, he neglected having medical advice. On Saturday, the 13th of June, he was cutting turf in the bog. During his work he found it "beginning to hurt him;" he then put down his hand and found the "lump" had become larger. He did not pay any attention to it, but went on with his

work, the "hurting" still continuing. He got no relief during the night, and the next day vomiting set in. He did not send for a doctor, that day "being Sunday." On the following morning his wife procured a dispensary ticket, and the district medical man having failed in his endeavours to reduce it, and seeing the dangers of the case, sent for the assistance of another medical man. They, after consultation, came to the conclusion that the only means to save his life would be by operation. Owing to the position of the man in life, and the consequent want of the means for the success of such an operation, they had him at once removed into the hospital, where I met him on his arrival. He was then suffering some pain, still vomiting, nothing passing from the bowels, the tumour about the size of a large apple, and very tense, pulse 90, tongue only slightly furred, countenance natural. Seeing there was no necessity for immediate operation, I resolved to try every other means first. He was put into the warm bath, taxis in every form used, and finally he was put under chloroform. All failed. It being then late at night, and there being no symptom of immediate danger, it was resolved to leave him till next morning, when, under the guidance of a consultation, the operation of opening the sac was performed in the usual way. The man refusing to take any more chloroform after the night before, the operation was performed without its aid. On the sac being opened, it was found to consist of intestine only, with a good deal of effusion. The intestine was a good deal congested. On passing the finger into the ring, the stricture was found at the inner edge of the external ring. This required a very free division before the bowel could be returned. The wound was then brought together with silver wire sutures, and dressed with a pad of lint wet in cold water, and securely bandaged. He was put to bed and kept in the recumbent posture, with the legs well flexed; an opiate given. On the fourth day the bowels were opened with a little castor-oil. The wound was daily dressed with a pad of clean lint. All went on well, and he was discharged cured on July 25th, previously having a truss fitted to him.

## STUDENTS' COLUMN.

### LESSONS ON PRESCRIPTIONS AND THE ART OF PRESCRIBING. (a)

By W. HANDSEL GRIFFITHS, Ph.D., L.R.C.P.E.,

Licentiate of the Royal College of Surgeons of Edinburgh, Honorary Member of the Ontario College of Pharmacy, Librarian to the Royal College of Surgeons in Ireland.

#### LESSON VI

##### INCOMPATIBILITY.

SUBSTANCES are said to be incompatible when their combination gives rise to chemical changes, a new compound being formed which is either inert or possessed of distinct properties. Chemical incompatibility, however, does not always signify therapeutical inertness. Substances which are chemically incompatible are sometimes intentionally combined in order to obtain a new compound; as, for instance, in the official *mistura ferri composita* a decomposition occurs between the sulphate of iron and carbonate of potash.

The subject of incompatibility is, as Parrish says, "too much of a stumbling block to the student." The older text-books of materia medica contained a long list of so-called incompatibles, which the unfortunate student was expected to commit to his already over-burdened memory. It is now known that many of these "incompatibles" are not incompatible at all, and that many of them might be excluded from the list, from the extreme unlikelihood of anyone ever prescribing them together.

Incompatibility may be threefold, viz. :—

1. Chemical.
2. Pharmaceutical.
3. Physiological and therapeutical.

We have given above the signification of *chemical* incompatibility. By *pharmaceutical* incompatibility we mean combination of such substances as are physically incapable of mixing; thus, if nitrous ether be added to tincture of guaiacum a gelatinous mass will result, or if resinous tinctures be added to aqueous solutions the resins will separate. The following are some of the more striking examples of pharmaceutical incompatibles, and they should be carefully remembered by the prescriber :—  
Compound infusion of cinchona with compound infusion of gentian.

Infusions generally with metallic salts.

Tinctures made with strong alcohol, with those made with weak alcohol, and with infusions and aqueous liquids.

Essential oils with aqueous liquids exceeding one drop to f. 3j.

Fixed oils and copaiba with aqueous liquids, except with excipients.

In our last lesson we alluded to the subject of *physiological* or *therapeutical* incompatibility. By this term we imply combination of such substances as possess opposite therapeutical and physiological properties, and which are medicinally inconsistent; for instance, belladonna would be physiologically incompatible with calabar bean.

I will now ask your attention to the following simple rules, a knowledge of which will be sufficient to guard you from the commission of any flagrant errors in the matter of chemical incompatibility.

#### LAWS OF CHEMICAL INCOMPATIBILITY.

1. Two salts in solution may form, by the interchange of their acids and bases, two insoluble salts which are precipitated.

2. When two salts in solution form, by the interchange of their acids and bases, a soluble and an insoluble salt, the latter will generally be precipitated, or may form with the soluble salt a double salt.

I have before me two clear solutions, one of chloride of barium, the other of sulphate of soda. As I mix them you observe the formation of a copious precipitate; this is insoluble sulphate of barium. If we now filter off the clear fluid, we will find it to be a solution of chloride of sodium.

3. When two salts in solution do not give rise to an insoluble salt no precipitate will result, though there may be decomposition.

4. An acid will decompose a salt—

(a) If the acid added be more fixed or more soluble than that of the salt.

(b) If the acid added can form an insoluble or a less soluble compound with the base of the salt.

(c) If the acid added possess a greater affinity for the base of the salt.

(d) If the acid of the salt be gaseous.

I have in one vessel dilute sulphuric acid, and in another vessel I have some liquor ammoniæ acetatis. You observe that, as I mix them, acetic acid is given off, and the fluid on examination will prove to contain sulphate of ammonia.

5. Oxides of the alkalies decompose salts of the metals proper and of the alkaloids, and precipitate their bases, or the base may be soluble in excess of the alkali.

Here is a solution of sulphate of zinc; as I add to it a little liquor potassæ, you see the formation of a precipitate of oxide of zinc; as I add more of the liquor potassæ, the precipitate becomes dissolved.

6. Metallic oxides combine with acids to form salts.

7. Vegetable substances containing tannic or gallic acids precipitate albumen, vegetable alkaloids, and most of the metallic oxides, and form with salts of iron inky solutions. Substances containing tannic acid also precipitate gelatine.

8. Glucosides are incompatible with free acids or emulsions.

(a) Corrected from shorthand notes by one of the author's pupils.

As a general rule the following substances should be prescribed alone, and are best given in simple solution :—

Acid. hydrocyanic. dil.	Potassii bromid.
Acid. nitro-hydroc. dil.	Potassii iodid.
Antim. tart.	Potassæ permanganas
Liq. calcis	Potassæ acetat.
Liq. potassæ	Zinci acetat.
Liq. potassæ arseniat.	Morphiæ acetat.
Liq. ferri pernit.	Morphiæ hydroch.
Tinct. ferri perchlor.	Quiniæ sulphat.
Tinct. iodi.	

I now propose to pass in review some of the more important instances of individual incompatibility, but in this survey I shall generally omit instances bearing on the rules we have above enunciated.

**ACID. HYDROCYANIC. DIL.**—This is not unfrequently prescribed with alkalies; a cyanide of the metal is thus formed, which is not less active than the acid itself.

**ACID. PHOSPH. DIL.** may be prescribed with syrup of phosphate of iron; if, however, it be combined with syrup of pyrophosphate of iron, the mixture becomes solid.

**ACID. SULPH. DIL.**—The rules which I have above given will obviate the necessity of enumerating the long list of substances with which this acid is incompatible. There is one combination, however, which I must warn you to avoid. Sulphuric acid is, as you are aware, very efficacious in cases of internal hæmorrhage, and so are the lead salts; we may not, however, combine these agents, as an insoluble sulphate of lead would result.

**ACID. NITRIC. DIL.**—Dr. Paris writes that he has seen a formula in which "a tincture of opium was directed to be prepared with rectified spirit, and mixed with undiluted nitric acid! In this case it may very safely be inferred that its author was not only ignorant of the chemical habitudes of those bodies, but that he was moreover guiltless of ever having perpetrated the act in question, or he would undoubtedly have found that, in consequence of the mutual action of these ingredients, *hyponitrous ether* is rapidly produced, and it is probable that the phial and its corrosive contents would have exploded, to the imminent hazard of the operator's eyes."

**ACID. TANNIC.** may be prescribed with the protosalts of iron, but not with the persalts. Galls and tannic and gallic acids are said to be incompatible with infusions and decoctions containing alkaloids, but tannates of alkaloids are by no means inert; tannate of morphia will induce sleep, and tannate of emetine will cause vomiting. Tannic acid is also incompatible with gelatine, and with many metallic substances.

**ACID. TARTARIC.**—This acid was formerly much used in making saline draughts. Now, if bicarbonate of potash be added to a solution of tartaric acid, titartrate of potash is thus formed, and at once precipitated; but if the tartaric acid be added to the salt of potash, no such untoward circumstance will occur.

**ALUM** is incompatible with alkalies and their carbonates, with tannic acid and preparations containing it, with tartrates, salts of lead, lime, and baryta, &c.

**ANTIM. TART.**—Acids, alkalies and their carbonates, and some earthy and metallic preparations cause precipitates with tartar emetic, but these precipitates are soluble in excess of caustic alkalies. If tartar emetic be combined with astringent vegetable infusions an insoluble tannate of antimony will result. I may here mention that tartar emetic is often, and with perfect propriety, prescribed with sulphate of magnesia.

**ARGENTI NITRAS.**—It is almost unnecessary for me to remind you that this salt should not be dissolved in undistilled water or in vegetable infusions.

**ARGENTI OXIDUM.**—This substance is incompatible with many organic substances. On account of its influence on the mucous membrane of the stomach, it might possibly occur to a practitioner that it would be a valuable addition to creasote in certain cases of vomiting. The result of such a combination would be spontaneous combustion.

**FERRI ET AMMONIÆ CITRATIS.**—This salt is sometimes prescribed in effervescence. In such a case the iron salt must be put into the citric acid solution, and not into that of the bicarbonate of potash; if the latter course be adopted, carbonic acid would be given off, with the probable effect of bursting the bottle. This salt is often prescribed with tincture of orange alone; it will be well to remember that unless *some* water be added, it will be insoluble in this menstruum.

**FERRUM TARTARATUM** may be prescribed with alkaline carbonates.

**HYDRARGYRI PERCHLORIDUM** is incompatible with vegetable preparations containing albumen or tannin. It is precipitated by alkalies, alkaline sulphurets, iodides, tartar emetic, &c.; in fact there is hardly anything with which it is advisable to combine corrosive sublimate except chloride of ammonium, which increases its solubility, and decoction of sarsaparilla.

**HYDRARGYRI SUBCHLORIDUM.**—You should be very careful not to order calomel in combination with any preparation containing a trace of prussic acid. Innocuous as calomel itself is, comparatively speaking, it is converted by prussic acid into bichloride and bycyanide of mercury, two virulent poisons.

**MAGNESIA SULPHAS.**—I have seen a prescription in which Epsom salts was ordered with calcined magnesia and colchicum wine; the result of such a combination would be an insoluble bulky mass.

**PLUMBI ACETAS** is incompatible with nearly everything except solid opium and distilled water. If common water be added to liquor plumbi subacetatis, carbonate and sulphate of lead will be thrown down.

**POTASSII IODIDUM.**—Should not be prescribed with sweet spirits of nitre, acid preparations, or those containing starch. In fact, iodine and iodides should be prescribed with as few additions as possible. Iodide of potassium decomposes nearly all metallic salts.

**CALUMBA.**—When we desire to combine salts of iron with a vegetable tonic, calumba may be chosen, as it contains no tannic or gallic acid.

**CAMPHORA** forms soft masses with gum resins. It destroys the odour of musk.

**CARTOPHYLLUM.**—Cloves contain tannin, and hence should not be prescribed with iron salts.

**TINCT. CASCARILLÆ.**—This preparation is not unfrequently prescribed with dilute mineral acids; the combination is however objectionable, as floccules soon float through the mixture. If it is desirable to combine an acid with cascarrilla, the infusion of that drug should be selected.

**TINCT. CANNABIS INDICÆ.**—If this or other spirituous solutions of resinous substances be added to water, the resin will be precipitated, unless mucilage be added in order to suspend it.

**TINCT. GUAIACI.**—I have already alluded to the fact that the addition of nitric ether to this preparation causes the formation of an unsightly bluish-green mass.

**CHLOROFORM** will not remain mixed with weak spirits or with glycerine.

**BELLADONNA, HYOSCYAMUS, and STRAMONIUM.**—It has long been known that caustic fixed alkalies decompose the alkaloids of these agents. Runge demonstrated the fact long ago, although a very recent author must have been ignorant of this, for he writes as if he claimed the discovery for himself. Carbonates and bicarbonates of the alkalies may be prescribed with preparations of these drugs.

**OPIMUM.**—The older text-books contained a long list of substances which were supposed to be incompatible with opium, most of these are not now considered as improper combinations. Tincture of opium is not unfrequently prescribed with acetate of lead; a decomposition takes place resulting in the formation of acetate of morphia and insoluble meconate of lead.

**QUINÆ SULPHAS** is often prescribed in combination with infusion of roses, and a turbid and unsightly mixture results.



I will conclude the subject of incompatibility by reminding you that we are not always to infer, that because a substance is insoluble in water, it is necessarily therapeutically inactive. Such substances may oftentimes be so operated upon in the laboratory of the human economy as to become essentially active and potent.

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## The Medical Press and Circular.

"SALUS POPULI SUPREMA LEX."

WEDNESDAY, SEPTEMBER 23, 1874.

### PROPOSED RECONSTRUCTION OF THE ARMY MEDICAL DEPARTMENT.

WE have been favoured by a correspondent with advanced proofs of an article which, we presume, has since appeared in an Indian military contemporary, upon the condition of the Army Medical Service, and as it deals fairly not only with the just complaints of the army medical officers, but with the necessities of the military service in respect to its medical organisation, it appears to us well deserving of perusal.

The altered system of war, says the author, has naturally necessitated a reconstruction of the Army in all branches, but in none was this more imperative than in the medical department.

There were more men wounded in a single day during the Franco-Prussian war than in a year of Peninsular campaign, and still our Army Medical Department is not better organised now than it was twenty years ago; in no way has it kept pace with the rapid advances made by other branches of the service.

It has therefore become a matter of pressing necessity that the best possible scheme of hospital organisation be at once devised and adopted. The importance of such a service cannot be overrated; not only an incalculable amount of health and life, but the very existence of an army may depend on it. At the Alma, had there been an efficient hospital corps capable of taking complete charge of the wounded in the field, Lord Raglan could have followed up his victory at once and taken Sevastopol, by which the suffering, life, and treasure thrown away during the following twelve months would have been saved.

The department has never been what the public had a right to expect. Its maladministration in the great hospitals in the Peninsular is a matter of history. In the Crimea things were nearly as bad; hospitals that should have been models of hygienic combinations were pest-

houses, and doctors were powerless for good. Its failings were never brought very prominently before the nation; not indeed until Dr. Russell's celebrated letters appeared in the *Times*, did they attract special attention. Since then no improvement or progress has been attempted by any Government; on the contrary, many of the reforms introduced by Lord Herbert have been abrogated from time to time, and were we to engage in war now, our last state would be worse than the first. Who is to blame for this? Apparently no one! The responsibility divided amongst so many, is insensibly lost, and will neither be accepted in the War Office, the Horse Guards, nor in Whitehall Yard.

In other days, when war dragged lazily along, perhaps lasting many years, with a battle now and then, slow marching, winter quarters, &c., an army sent its bad cases only to the general hospitals in the rear, and carried most of its sick and slightly wounded with it. These did very well, except perhaps in a retreat or during hurried movements, when of course they came more or less to grief. This was the regimental hospital system, and was carried out under the orders of the commanding officer by a surgeon and two or three assistant-surgeons, integral parts of, and belonging to, the regiment. It did not answer very well in war, but in peace it exhibited the most perfect organisation for the comfort of the sick that perhaps has ever been attained.

Even medical officers most wedded to the regimental system confess that the latter must be abandoned in war, and they admit the necessity for a sanitary corps, in which interest in, reliance on, and knowledge of, each other by officers and men, would ensure an efficient, useful, and well-disciplined body.

The organisation and development of such a corps appears beset with difficulties. In the first place the removal of medical officers from their regiments is very unpopular with all combatant ranks. The commanding officer likes to have his sick under his immediate eye, he is proud of his hospital, he shares with his doctor in the compliments almost universally paid it by general officers.

The doctors are equally opposed to the general staff system, or to what is erroneously called "Unification," and it is not to be wondered at if their case be fairly represented from this point of view as well as from their own.

It is said that the Royal Medical Warrant of 1858 has been violated from time to time during late years till scarcely any of the privileges conferred by it remain. Medical officers felt much aggrieved by these numerous breaches of faith, and for some years a deep feeling of dissatisfaction has existed equally prejudicial to the service, to the officers, and to their progress and professional advancement. This condition of things did not manifest itself prominently, owing to the majority of the officers concerned being isolated and contented in their respective regiments.

Suddenly, on the 1st March, 1873, a new warrant appeared, summarily removing medical officers from their regiments and placing them on a general staff list. The effect of this was, that their old and formed friendships and associations were broken up, they lost their

homes, and the advantages of mess, library, bands, &c., in which they had established vested interests; many lost large sums paid for exchanges, varying from £100 to £1,000. The loss occasioned by change of uniform and appointments, and by the forced sale of horses was considerable. The loss in servants may be estimated at £30 per annum where one was allowed, and to £60 to officers entitled to two, as a servant cannot be maintained for less than £50 per year, whereas the Government allowance is £18 5s. From being members of distinguished corps and regiments they found themselves placed in a medical staff corps without prestige, position, or standing, and liable to be sent to any part of the world at a few days' notice. Besides this, much additional work was imposed on them in having to take over duties hitherto performed by purveyors and storekeepers, whose offices were now abolished, while at the same time, the strength of the department was reduced from over 1,000 to less than 900 officers, by which means a saving to the Government of over £20,000 a year was effected, at the sole expense of the medical officers.

As it is a matter of importance that every branch of the Service should have no just ground of grievance or discontent, it will be naturally asked, what recompense did the wise War Minister offer the department in return for the losses and extra work he imposed? He allowed assistant-surgeons to call themselves surgeons, and surgeons to be styled surgeons-major, while deputy inspectors-general became deputy surgeons-general, and inspectors-general surgeons-general, and that is all!

The following basis of the proposed reorganisation of the medical department appears to obtain general approval; it has great advantages, even from Mr. Cardwell's point of view, for while it would cost the country nothing, it would restore to medical officers most of the regimental advantages they have lost, and give to the authorities economy and the unification necessary to the reconstruction of the department.

I. The Army Medical and the Army Hospital Corps to be amalgamated into a Royal Sanitary Corps, taking rank with the other scientific corps.

II. That the officers of the Royal Sanitary Corps shall rank as follows:—

Surgeon-general as major-general.

Deputy surgeon-general as colonel.

Surgeon-major (over 20 years) as lieutenant-colonel.

Do. (under 20 years) as major.

Surgeon (6 years' service) as captain.

Do., on appointment, as lieutenant of four years' service.

III. That the officers of the Sanitary Corps be permitted to wear the ordinary distinctions and badges of such rank on their uniforms, with such others as may be special to the corps, it being distinctly understood that the privileges give them no command whatever, except over patients in hospital or officers and men immediately attached to hospital establishments.

IV. That the Corps be divided into some thirty divisions under deputy surgeons-general, to move on home and foreign service like brigades of artillery. Only officers to proceed to India. This scheme would give one year's foreign service.

That medical officers be completely separated from

regiments. When doing duty with them to be attached as honorary members only; that they pay mess and library subscriptions to their departmental institutions, and live in their own messes whenever practicable.

V. That for all duty purposes medical officers be kept with corps as long as possible.

Under the divisional system suggested in No IV., medical officers could remain with regiments quite as long as they did formerly, viz., three years on an average.

It would be seldom necessary to remove them from their corps in Gibraltar, Malta, West Indies, The Cape, Ceylon, &c.

They should accompany the regiments when they moved to new stations, and after handing them over there to medical officers having some experience of the—perhaps to the regiment—new country, return to their original stations.

For India this organisation would be simpler still.

VI. That, except for duty, medical officers be completely separated from regiments, that they live in their own messes whenever practicable, and pay mess, library, &c., contributions to their departmental institutions, which might be formed on the model of the station messes of the Royal Artillery.

When, however, their own messes might not be available, and they became honorary dining members of other messes, the latter to be entitled to the subscriptions.

VII. That the sick continue to be treated regimentally until experience shows the way to that system which may prove most suited to peace and to meet the exigencies of war.

The medical officers deserve sympathy for the weary worry they have suffered through short-sighted policy. Honour points out the way by which they can best benefit their country, and although it is opposed to their interests in many instances, there is no doubt as to the course they will adopt, for self sacrifice has never been asked in vain from the members of their glorious profession. They have every assurance of the great sorrow felt by the officers, non-commissioned officers, men, women, and children at their removal from amongst them. For hundreds of years they have been the persistent champions of the soldier, and his companion through danger, pestilence, and battle. Their literary productions, records, and the acknowledgments by Royalty, Lords and Commons, of the obligations the country and army have been under to them, abundantly testify to the weight and brilliancy of their services. They have gained, against powerful opposition in high quarters, those great sanitary improvements which have added, it is calculated, at least five years to the average duration of the soldier's life. They have nearly succeeded in eradicating scurvy, consumption, dysentery, and typhus, that—half a century ago—were scourges of the army, and in themselves produced a higher death-rate than now occurs from all causes. We hope the victory over other dread diseases may soon follow. There is the study of divine thought and loving kindness in Nature, following humbly in the footsteps of the Great Physician and Healer; there is the greatest work the mind and intellect of man can be applied to, and the most highly honoured since all time. Therefore, we say, medical officers need not fear loss of prestige or position in being embodied in a military



medical corps which may trace its descent from the Knights of St. John and the Templars; the first corporation who devoted themselves to the care of the sick and wounded in war, and who had to arm themselves and fight in defence of their charge.

### THE PUBLIC HEALTH (IRELAND) ACT.

THE first step towards carrying this important enactment into effect has been taken within the last week by the Irish Local Government Board. They have issued to the various sanitary authorities, rural and urban, their sealed orders to proceed at once to the appointment of officers.

The total number of sanitary authorities constituted by the Act is 205, of whom 163 are boards of guardians and 38 are governing bodies acting as urban authorities—in other words, township commissioners—the remaining 4 being the Corporations of Dublin, Cork, Belfast, and Limerick.

The "Public Health (Ireland) Act, 1874," as the Local Government Boards points out, contains many important amendments of, and additions to, the previously existing sanitary laws, but the bulk of the enactments relating to water-supply, sewerage, the removal of nuisance, and remedies of other matters dangerous to public health, are found in the Sanitary Acts of previous date to 1874, having been administered by boards of guardians and governing bodies both before and since the passing of the Sanitary Act, 1866.

The Board, in their circular note, point out that the principal functions of sanitary authorities will be to ensure the purity of the air and water of their districts, and they conclude with an expression of the hope that the sanitary authorities newly constituted may, by a moderate and persevering, but not oppressive, use of their powers, be able to make improvement universal within a reasonable space of time, and by means of a moderate amount of expenditure.

The "sanitary orders" which accompany this circular are addressed to the various sanitary authorities, and require them to hold their first meeting in such capacity on the day of the second weekly meeting of the Board of Guardians after the receipt of the order. They are reminded that "by the tenth section of the said Act, every medical officer of a dispensary district shall be a sanitary officer for such district, or for such part thereof as he shall personally be in charge of," and they are required to proceed, as soon as may be, to appoint—

1. Sanitary sub-officers (as many as may be necessary). For this office "the relieving officers of the union and the collectors of poor rates shall be alike eligible."

2. One consulting sanitary officer, for which office "every medical officer of the union, including the workhouse medical officer or officers, shall be eligible, and also subject to our approval, any other medical practitioner having the same qualifications."

3. One executive sanitary officer, for which office the clerk of the union, or any assistant of the clerk appointed by the guardians, shall be eligible.

The duties of these officers are thus defined:

#### I. INSPECTORIAL DUTIES.

1. Every sanitary sub-officer who shall observe, or be

informed of any matter demanding, in his opinion, attention from the sanitary officer of the dispensary district in which he has discovered the same, shall notify it forthwith to the sanitary officer in writing, specifying the nature of the case in the Form (a) in the Schedule B to this Order annexed, and shall preserve a copy thereof in duplicate.

2. Every sanitary officer who shall have been apprized officially, or shall otherwise become cognisant of any matter demanding his attention as aforesaid, shall, as soon as conveniently may be, visit the locality, and if, after due inspection, he finds such matter to involve danger to public health, he shall report thereon to the Board of Guardians, in the Form (b) in the said Schedule B, showing the source from which he received the information, and the date thereof, and the date of his visit of inspection: he shall also give a sufficient description of the nature of the case, and the remedy which he recommends to be adopted, and shall preserve a duplicate of every such report.

#### II. EXECUTIVE DUTIES.

1. The duty of the executive sanitary officer shall be to attend every meeting of the guardians acting as a sanitary authority, and to take their directions from time to time on the sanitary business of the Board, and on the reports of the sanitary officers, and all proceedings arising therefrom, and to see that the same are carried out and brought to a conclusion where practicable, in pursuance of the orders of the Board.

2. In furtherance whereof we do hereby direct that every sanitary officer and sub-officer of the union shall, on receiving directions from the executive sanitary officer, attend and assist in all proceedings in which his attendance or assistance may be deemed necessary.

3. The duty of the consulting sanitary officer shall be to attend meetings of the guardians acting as sanitary authority, whenever required to do so, and to advise them on all matters and proceedings requiring medical knowledge and advice in the administration of the sanitary laws.

4. The proceedings of the Board of Guardians acting as the sanitary authority shall be recorded in the same manner as the minutes of the proceedings of the Board under the Poor-law and Medical Charities Acts, and a copy of such record shall be annexed to the ordinary minutes of proceedings of the Board of Guardians, and shall be transmitted to the Local Government Board by the clerk of the union with such last-mentioned minutes.

#### III. STATISTICS OF DISEASE.

It shall be the duty of the consulting sanitary officer and of the sanitary officers to furnish from time to time to the Local Government Board such statistical returns of sickness and disease in the workhouse and its hospitals, and in the dispensary districts, as shall from time to time be required from them respectively.

### THE DOCTOR IN THE WITNESS-BOX.

It is but recently that we have had occasion to comment on the discreditable position occupied by medical men of the highest rank in their capacity of rival witnesses in a court of law. We took occasion to say that the rôle of paid partisanship which medical witnesses frequently accepted was dishonourable both to themselves and to

their profession, and that the exhibitions of cross swearing upon trials in which medical expert evidence was required, had degraded in the public mind the value of such testimony, and even called in question the good faith and the veracity of medical men.

The effect of such evidence upon the minds of jurors and upon the course of justice received a further illustration at the Middlesex Sessions the week before last. Three men had been tried for a violent assault on a policeman, and the jury, to the surprise of every one, found one of them guilty of a common assault *only* on the officer while in the execution of his duty, and not of an assault occasioning grievous bodily harm, and they also expressed their disapproval of the way in which the evidence on the part of the prosecution had been presented to them.

For this verdict, which appeared ridiculously inconsistent with the savagery of the assault, the jury was taken to task by the morning papers, and the foreman therefore considered it necessary to offer to the judge an explanation of the reasons which actuated the jury in coming to such a decision. He said that, as their verdict appeared to have created some surprise, he was anxious to state the grounds of their decision. He then explained the difficulty they had experienced in dealing with the medical evidence, on account of its indecisive character. Mr. Serjeant Cox, the presiding judge, then observed that he concurred in their opinion as to the medical evidence.

It is plain that, if medical experts can do no more than muddle the intelligence of jurors by contradictory swearing, professional evidence will speedily fall to a discount, and it is, in the interest of the profession, greatly to be regretted that members of the profession should take so false a view of their position as to assume that they are paid to swear whatever their employer requires. We are well aware that medical witnesses are incapable of giving evidence which they know to be biased or inaccurate; but a perusal of the testimony on many trials has forced upon us the conviction that they are frequently induced to see the facts from but one point of view, and, within their own mind, to shape the facts into a consistency with the case of their employers. Unprejudiced scientific medical testimony, we regret to say, is but rarely submitted to juries.

## Notes on Current Topics.

### The Genesis and Propagation of Cholera.

THE International Sanitary Conference has had this question, amongst others equally important, under its discussion, and has arrived at certain definite views, which are published by the *Practitioner* in its issue of the current month, and which we think well worthy of being reproduced in our columns. These conclusions were submitted to the Conference as resolutions, and, in the majority of instances, adopted with unanimity.

I. *Endemicity and Epidemicity of this Disease in India.*—Asiatic cholera, susceptible of spreading (epidemically), is spontaneously developed in India, and when it breaks out in other countries, it has always been introduced from

without. It is not endemic in any other country but India.

II. *Questions of Transmissibility.*—1. *Transmissibility by Man.*—Cholera is transmissible by man coming from an infected medium; but man is not considered as the specific cause, apart from the influence of locality; he is regarded as the propagator of cholera when he comes from a place where the germ of the disease already exists.

2. *Transmissibility by Clothing, Linen, Bedding, &c.*—Cholera can be transmitted by personal effects coming from an infected place, especially such as have served for the sick from cholera; and certain facts show that the disease can be carried to a distance by these effects if shut up so as to prevent free contact with the air.

3. *Transmissibility by Foods and Drinks.*—(a) *Foods.*—The Conference not having conclusive proofs of the transmission of cholera by foods decided by eleven States against seven that it was not justified in coming to a decision on this question.

(b) *Drinks.*—Cholera can be propagated by drinks, particularly by water.

4. *Transmissibility by Animals.*—No proof exists of the transmissibility of cholera by animals, but it is reasonable to admit the possibility of such transmission.

5. *Transmissibility by Merchandise.*—Although proof is wanting of the transmission of cholera by merchandise, the possibility of such transmission in certain conditions should be admitted.

6. *Transmissibility by Cholera-corpses.*—Although it is not proved that cholera-corpses can transmit cholera, it is prudent to consider them dangerous.

7. *Transmissibility by the Atmosphere alone.*—No fact is yet known which proves that cholera can be propagated to a distance by the atmosphere alone, whatever its condition. Moreover, it is a law, without exception, that an epidemic of cholera is not propagated from one place to another in a shorter space of time than it takes man to travel.

The surrounding air is the principal vehicle of the generative agent of cholera; but the transmission of the malady by the atmosphere, in the immense majority of cases, is restricted to the close vicinity of the focus of emission. As to facts asserted of transportation to a distance of one or many miles, they are not conclusive.

8. *Action of the Air upon the Transmissibility.*—It results from a study of the facts that in free air the generative principle of cholera rapidly loses its morbid activity; but that in certain conditions of confinement this activity may be preserved during an undetermined time. Great deserts form a very efficacious barrier against the propagation of cholera. This disease has never been imported into Egypt or Syria, across the desert, by caravans from Mecca.

III. *Duration of Incubation.*—In almost every case the period of incubation—that is to say, the time which elapses from the moment when an individual has contracted the choleraic intoxication to the commencement of the premonitory diarrhoea or of confirmed cholera—does not exceed a few days. All the facts cited of a more prolonged period of incubation refer to cases which either are not conclusive, or in which the premonitory diarrhoea has been included in the period of incubation, or in which

contamination (the contraction of the choleraic intoxication) has occurred after departure from the infected place.

Observation shows that the duration of the choleraic diarrhoea called premonitory—which must not be confounded with other kinds of diarrhoea that may exist where cholera prevails—does not exceed a few days.

The facts instanced as exceptional do not prove that cases of diarrhoea of lengthened duration belong to cholera and are susceptible of transmitting the malady, when the person affected is removed from all cause of (choleraic) contamination.

IV. *Questions as to Disinfection.*—Are any means or processes of disinfection known by which the generative or contagious principle of cholera can be *certainly* destroyed or deprived of its intensity?

Are any means or processes of disinfection known by which the generative or contagious principle of cholera can *with some chance of success* be destroyed or deprived of its intensity?

Science does not yet know any certain and specific measures of disinfection; but the great value of hygienic measures, such as ventilation, thorough cleansing, &c., is to be recognised, combined with the use of the substances regarded as disinfectants.

#### Determination of Sex ante Partum.

A VALUABLE contribution to what is already known on this subject has been recently made by Drs. Strong and Steele to the Chicago Medical Society, and which is reported in full in the last number of the *Chicago Medical Examiner*.

It is, as our readers know, claimed that the pulse of the female foetus is uniformly much faster than that of the male, one observer establishing a difference between them of fifteen or twenty pulsations per minute. It is also claimed that the presentation may be actually determined by noting the point at which these sounds are most distinctly audible.

Some writers have been very enthusiastic in defence of the opinions founded upon their observations. Frankenhauser, for example, gravely asserts that in fifty cases which he examined, his diagnosis was in every instance correct. In an article on "Fœtal Physical Diagnosis," by Dr. Wilson, the writer says he has "kept accurate notes of all the cases met in hospital or private practice, diagnosing the sex in each, failing only in nine cases out of 109."

On the 1st of February the authors commenced a series of observations, in order to ascertain in what percentage of cases predictions as to sex could be verified, and have each kept a careful record of fifty separate cases in which observations have been made since that date. From these it will appear that the disparity between the pulse of the male and the female infant is not as great as that established by other observers, and that, as a consequence, the ability to predict the sex of the foetus in utero is far from flattering.

The stethoscope was found preferable to the unaided human ear in noting the cardiac pulsations, since the latter are limited to a space but two or three square inches in extent. It should be added that, for convenience, we divided the uterine tumour, by four imagi-

nary right lines, into four equal parts, designated as the right and left upper, and the right and left lower quarters. It is stated that if the heart pulsates in the lower half of the abdomen, the vertex presents; if in the upper, the breech is the presenting part; and, furthermore, that the occiput or coccyx will be on that side of the median line where the heart sounds are most distinctly audible.

The foetal pulse, it appears from these observations, is subject to the same variations as that of the adult, only in a much more marked degree. While the child is perfectly quiet the heart is tolerably uniform in its pulsations, but by the least movement the pulse is greatly accelerated, increasing thirty to forty beats in the minute. Throughout a natural labour the action of the heart is variable, so much so that in the majority of cases when observation only was made at this time, the prognosis proved to be incorrect. During the first part of a pain the pulse is greatly accelerated, but as the uterus contracts more firmly and the child is subjected to greater pressure, it falls considerably; as the pain disappears it rises above the normal rate, and if the interval lasts a few moments, it again falls and becomes regular and more rapid than before labour began. From these facts relative to the variable action of the foetal heart, it is evident that the examination *must be repeated at different intervals and during the time that the child is perfectly quiet*; and that the average result of such examination, since it is an approximation to the true state of the pulse, can alone be of possible service in determining the sex of the child.

Of the first fifty women examined, there were:

Multiparæ, 13; primiparæ, 37.

From the statistics quoted by the authors, they deduce the following observations:—1. In the majority of cases male foetal hearts are slower than female. 2. 132 foetal pulsations per minute is the average which constitutes a dividing line between the sexes. Below this, sixty-eight and four-sevenths per cent. are males, twenty per cent. are females, eleven and three-sevenths per cent. are doubtful. Above this fifty-three and one-third per cent. are females, twenty-six and two-thirds per cent. are males, twenty per cent. doubtful. We have here, it may be observed, another demonstration of the fickleness of the female heart. 3. The most accurate observations are made during the last four weeks of gestation. 4. The rapidity of the heart's action is increased in proportion to the feebleness of the foetus. 5. Calcareous or fatty degeneration of the placenta renders the pulsations feeble and irregular. 6. In some cases it would be possible to diagnose diseased conditions of the placenta from careful observation of the foetal heart.

Of fifty cases examined consecutively, twenty-seven gave birth to female children, and twenty-three to males. The lowest rate observed was 118; it occurred but twice; one each in a male and female child. The highest rate noted was 180, occurring three times, twice in males and once in the case of a female. The average rate of the male pulse was 136.3; of the female, 137; of both sexes, 136.7. Considering the latter as the dividing line between both sexes, a pulse at and below this rate may be referred to males, and that above it to females. In twenty-six cases the sex was correctly predicted, and in twenty-four an error was made.

In regard to determining the presentation, we can report more favourably, having been correct in forty-nine out of fifty cases. The case of failure was one where the breech was the presenting part, but the examination was not made till the second stage of labour.

In conclusion, it may be generally stated that the authors find an opinion as to the sex of the child, founded on the rate of the foetal pulse, to be of little more value than a guess, while the presentation, generally, and the exact position, possibly, may be accurately determined.

### The Physiological Action of Prussic Acid and the Antidotal Value of Atropine.

THE *Practitioner* for the current month recapitulates at considerable length a record of the researches of Dr. Boehm, of Dorpat, into this subject, undertaken by him for the purpose of verifying the previous investigations of Preyer. The experiments had been made upon cats and rabbits, and the conclusions arrived at are as follows:—

1. The operation of prussic acid is directed upon the central nervous system, whose functions are annihilated by large doses, after a brief excitement or increase.

2. The lesions of respiration and circulation arise from analogous changes in the activity of their centres in the medulla oblongata.

3. The vagus plays no part, either in the effect of prussic acid on the respiration, or in its effect upon the heart.

4. Atropine is not an antidote to prussic acid. The only rational treatment of this poisoning is the persevering performance of artificial respiration.

### Possibility of Cinchona Cultivation in Ireland.

A CORRESPONDENT has forwarded to us copies of the *Overland Ceylon Observer*, containing a very elaborate article upon the cultivation of the cinchona in Ceylon, from which it appears that the plant has been successfully naturalised in that country, and with every prospect of successful and lucrative cultivation.

The author notices the importation of some plants of the *Cinchona crispera*, and says "this plant ought to answer at our very highest elevations, for it stands frost—in fact, Mr. Cross found it growing on the summit of the highest mountains around Loja, where the temperature occasionally falls to 27°. The climate of Killarney (mean summer temperature, 59½°; winter, 44½°, and therefore closely approaching the climate of Newera ELLIYA), which suits the arbutus so well, Mr. Howard thinks would answer for this variety of cinchona."

The experiment thus hinted at is certainly worth trying, and perhaps some of our readers in or near Killarney may be disposed to make the attempt. It would be a strange event if the arbutus of the Irish Switzerland should some day be replaced by the cinchona tree, and if London chemists should send for the raw material of their quinine to Kerry instead of Ooctacamund.

### Small-pox Inoculation in Ireland.

WE noted recently an alarming report as to the prevalence of the crime of small-pox inoculation in the county Mayo, and we observe that the Irish Local Government Board have forwarded to the Lord Lieutenant the letter

of the medical officer of the district, in order that the police might be put in action.

One prosecution has taken place at Kiltamagh, and the inoculator was sent for trial. It seemed to have been admitted that the victim was inoculated, but the defendant's case is that the inoculation failed, but that the child took the contagion in the usual course and died. More than a month is said to have elapsed between the inoculation and the appearance of the disease.

By the way, we are surprised that the English anti-vaccination fanatics have not got up a petition to the Queen, or a defence fund, or a testimonial, or something of the sort, in approval of these inoculators, and in consistency with their peculiar views about the liberty of the subject and the right of every free Briton to have small-pox or syphilis if he likes.

### Special Position for the Reduction of Dislocated Vertebrae.

A MAN, *æt.* 41, fell under a weight he was carrying on his shoulders. He yielded down on his knees, and was lifted up unconscious, and with a marked dislocation of his 11th dorsal vertebra, which also had its spinous process broken off, as well as those of the 9th and 10th. There was complete paralysis below the fracture. Reduction was attempted unsuccessfully, when Dr. Bliss had the patient laid on the ground, put assistants at each extremity, bent the spine firmly in an arch, supported by the knees, and the surgeon then pressed strongly on the dislocated vertebra and easily reduced it. The spinal column immediately resumed its shape, and in three minutes the patient was able to move his feet and sensibility immediately reappeared.

### Relief of Cerebral Abscess by the Trephine.

At a recent meeting of the Association Française a case of a young man, *æt.* 18, was shown, where trephining of the skull had been performed for the cure of cerebral abscess with perfect success. There was no imperfection remaining of either mind or body.

### The Growth of Specialities.

THE *Lancet* publishes the following amusing *jeu d'esprit* from the pen of Dr. Barnes:—

"I have been recently honoured by a visit from a lady of typical modern intelligence, who consulted me about a fibroid tumour of the uterus; and, lest I should stray beyond my business, she was careful to tell me that Dr. Brown-Séquard had charge of her nervous system; that Dr. Williams attended to her lungs; that her abdominal organs were entrusted to Sir William Gull; that Mr. Spencer Wells looked after her rectum; and that Dr. Walshe had her heart. If some adventurous doctor should determine to start a new speciality, and open an institution for the treatment of disease of the umbilicus—the only region which, as my colleague, Mr. Simon, says, is unappropriated—I think I can promise him more than one patient."

### Assessment of Salaries by the Local Government Board.

IT may be in the recollection of our readers that, when the late physician to the Galway Fever Hospital recently resigned his office, he was granted a superannuation

allowance, and his son was appointed to succeed him. The guardians, much to their own satisfaction, no doubt, came to a cheap arrangement to cut off from the salary of the newly-appointed physician the amount of his father's superannuation, and they, no doubt, calculated by this means to pension the late medical officer at his son's expense. The Local Government Board, however, determined that the interests of the hospital should not be prejudiced by any such family arrangement, and they insisted that the guardians should pay a reasonable remuneration, and, finally, were obliged to issue a sealed order fixing the salary at £60, being double the amount decided upon by the guardians. We observe that a memorial to the Lord Lieutenant against this action of the Local Government Board had to be abandoned by its promoters because only a few of the guardians would sign it.

The episode is an insignificant one in itself, but it enunciates a principle which may prove very valuable in reference to the working of the Public Health (Ireland) Act.

It is not at all improbable that many boards of guardians—newly-dubbed “Rural Sanitary Authorities”—will be hostile to any sanitary improvements (many of their members being themselves proprietors of dung-heaps and cesspools which would need reform), and, as they are compelled to appoint a sanitary staff, will endeavour to defeat the attempt at cleanliness by voting farcical salaries for their health officers.

It is no secret that the Dublin Corporation are in this position, and it is anticipated that they will attempt to snub the Metropolitan dispensary medical officers (who have bored them with reports of fever nests and other insubstantial developments), by fixing their salaries at £5 a piece, or such sum as will effectually prevent their performing any efficient duty as medical officers of health.

In view of this probability, we are gratified to observe that the Local Government Board are conscious of their power over obstructive guardians and corporations, and will be prepared to put on the screw when the public interest requires it. As far as the Dublin Corporation is concerned, a dire experience enables us to anticipate the course of events. No doubt every poor relation of a corporation who—by any stretch of imagination—can be conceived qualified for appointment, will be a candidate for some of the “little pickings” in course of distribution. The religious screw and the personal whip will be in full exercise, and in the event we shall no doubt see many of the public health offices filled by men whose only mark is their curious incompetency for their duties.

### Unreal Bouquets in Wine.

THE falsities of Cetto and Hambro' sherries are a thrice-told tale; and it is only a week since we were informed by the morning papers that a confectioner essayed to defend a charge of having sold wine without a licence by asseverating that the liquor was only “British” port, sold at 2d. a glass, and, he believed, not containing one drop of wine.

Most of our readers may think that all this is nought to them, and have too much confidence in the education of their noses to believe that they might be taken in even

in the bouquet of their nectar. Little do they think that the aroma in which they luxuriate may be a vile chemical compound, concocted, perhaps, from the dirtiest sources, for the purpose of deceiving their olfactory sense, and inducing them to admit to their unhappy stomachs a compound against which their noses should keep guard. Nevertheless, it is true. The *Chemist and Druggist* acknowledges to have received from Dr. Ludwig Raab, Professor of Chemistry in Straubing University, specimens of “œnanthyllic, caprynic, caprylic, butyric, and baldrianic ethers, made specially by the learned Professor for the improvement of low-class wines.”

Some of these ethers, he says, are those which, by the natural process of fermentation, give the aroma to Bordeaux, some to Hungarian wines, and some are added to whisky to make it into cognac; and he claims to have superseded the troublesome process of distilling these products from wine refuse by a secret method of making them artificially. Henceforth wine-makers need not be at the trouble of waiting and watching for a perfect fermentation, but can produce their Chateau Lafitte or Steinberg Cabinet *au choix* by the addition of a dash of Professor Raab's ether.

### A Poor-law Catechism for Guardians.

WOULD it be considered an impracticable suggestion if we advised that Poor-law guardians should be considered ineligible to sit until they had passed an examination in the rules and regulations which govern their duties and authorities?

If such an arrangement could be enacted, the Irish Poor-law Service would be saved a great deal of misspent time and unnecessary declamation, for there is not a board of guardians in Ireland which is not constantly occupied by stump speeches and village debates upon matters in regard to which they have no choice whatever. At Borrisokane lately the greater part of a sitting of the board was occupied by a discussion as to whether the medical officer should be compelled to provide instruments for his public duties at his own expense, and several rural Demosthenes aired their eloquence in advocacy of the affirmative. If the Poor-law Acts and regulations had been known to the guardians they would have been aware that such a proposal is totally illegal, and that if they refused to supply their officers with all necessary appliances he would be perfectly justified in declining to treat the patients, and assigning to the Local Government Board as his reason that he did not possess essential facilities.

### Reappearance of Black Plague.

FROM Egyptian sources we are informed, says the *France Médicale*, of a new plague which has not appeared now in Europe for several centuries. It seems to be nothing less than the black plague which formerly depopulated Florence, and it is certain that it has appeared in great extent in the neighbourhood of Mecca and Medina. The official reports from these places give the most frightful description of this horrid disease. Its chief symptoms consist in the formation of buboes, which, once they appear, leave no hope of recovery. Dr. Pasqua, who is the sanitary

inspector, declares that this affection is of a true epidemic-contagious character.

The Egyptian Government has already taken the precaution of establishing a strict sanitary *cordon*; but it is to be feared that these precautions will be of small avail, as the time of the great *Ramazin* is now at hand, during which hundreds of thousands of pilgrims will go to Mecca as a sacred duty, who will doubtless run a great chance of importing this infection when they leave. Italy is already very much alarmed as to the possible importation, and has taken means accordingly; but unless the Governments of Europe urge the adoption of active measures on the Mussulman authorities grave results may be anticipated.

### Carnivorous Plants.

ONE of the most interesting and instructive communications to the British Association was contributed to the Sub-Section of Zoology and Botany, by Dr. Hooker, on what he termed "The Carnivorous Habits of some of our Brother Organisms—Plants." He said: Various observers have described with more or less accuracy the habits of such vegetable sportsmen as the Venus flytrap and the pitcher plants, but few have inquired into their motives and the views of those who have most accurately appreciated them. These have not met with that general acceptance which they deserved. Quite recently the subject has acquired a new interest from the researches of Mr. Darwin in the phenomena which accompany the placing albuminous substances on the leaves of *drosera* and *pinguicula*, and which in the opinion of a very eminent physiologist prove in the case of *drosera* that this plant digests exactly the same substance and in exactly the same way that the human stomach does. With these researches Mr. Darwin is still actively engaged, and it has been with the view of rendering him such aid as my position and opportunities at Kew afforded me that I have, under his instructions, examined some other carnivorous plants. About 1768, a well-known English naturalist sent to Linnæus a drawing of a plant, to which he gave the poetical name of *Dionæa*. He said "the plant shows that nature may have some views towards its nourishment in forming the upper joint of its leaf like a machine to catch food. Upon the middle of this lies the bait for the unhappy insect that becomes its prey. Many minute red glands that cover its surface, and which perhaps discharge sweet liquor, tempt the poor animal to taste them, and the instant these tender plants are irritated by the feet the two lobes rise up, grasp it fast, lock the rows of spines together, and squeeze it to death." Linnæus only saw in these wonderful actions an extreme case of sensitiveness in the leaves, which caused them to fold up when irritated, just as the sensitive plant does, and he consequently regarded the capture of the disturbing insect as something merely accidental, and of no importance to the plant. He was, however, too sagacious to accept Ellis's sensational account of the *coup de grâce* which the insect received from the three stiff hairs in the centre of each lobe of the leaf. For another generation the history of this wonderful plant stood still, but in 1868 an American botanist (Mr. Cranby), who is still happily engaged in botanical research, was staying in the *Dionæa* district, studying the habits of the plant pretty carefully, especially the points which Dr. Curtis had made out. His

first idea was that the leaf had the power of dissolving animal matter, which was then allowed to flow along the somewhat trough-like retiole to the roof, thus furnishing the plant with highly nitrogenous food. By feeding the leaves with small pieces of beef he found, however, that these were completely dissolved and absorbed, the leaf opening again with a dry surface, and ready for another meal, though with an appetite somewhat jaded. He found that cheese disagreed horribly with the leaves, turning them black, and finally killing them. Finally, he details the useless struggles of *curculio* to escape as thoroughly establishing the fact that the fluid already mentioned is actually secreted, and is not the result of the decomposition of the substance which the leaf has seized. It is a generalisation now—almost a household word—that all living things have a common bond of union in a substance always present, where life manifests itself, which underlies all their details of structure. This is called protoplasm. One of its most distinctive properties is its aptitude to contract, and when in any given organism the particles of protoplasm are so arranged that they act, as it were, in concert, they produce a cumulative effect, which is very manifest in its results. Such a manifestation we possibly have also in the contraction of the leaf of *Dionæa*. Not merely are the phenomena of digestion in this wonderful plant like those of animals, but the phenomena of contractility agree with those of animals also. To Mr. Darwin, who, for some years past, has had the subject under investigation, we are indebted, not merely for the complete confirmation of the facts attested by the earliest observers, but also for some additions to those facts which are extremely important. The whole investigation still awaits publication at his hands, but some of the points which were established have been announced by Professor Asa Gray in America, to whom Mr. Darwin had communicated them.

### Practical Cremation.

WE have had a very disagreeable and disgusting sensation within the last few weeks, a sensation which, remarks *The Missouri Clinical Record*, has opened our eyes to the existence of the most loathsome crimes in our very midst. Madame Fortmeyer, a midwife, was arrested by the police for committing an abortion upon a young mulatto girl who died in consequence of the operation. At the coroner's inquest, among other horrible details, it was proved that Madame Fortmeyer not only unscrupulously resorted to this infamous business as a means of livelihood, but that she had a unique and original method of ridding herself of all tell-tale evidence. A favourite aphorism with her was, "*ashes tell no tales*."

This very pleasant and amiable person indulged in the pastime of burning the results of conception; and it was shown at the inquest that she had roasted in her stove the bodies of living, breathing infants.

Madame Fortmeyer's body will probably offer a fitting specimen for publicly and practically illustrating the subject she appeared so fond of in private.

A GIRL named Amelia Andrews, one of the children who was bitten by a mad dog in Walworth in March last, died of hydrophobia last week.



**Workhouse Milk.**

THE Abbeyleix Guardians have prosecuted their milk contractor, Mr. Richard Seale, for cheating them in the milk, and the magistrates have fined him £10 and £10 costs. Very good so far as it goes—probably about two months' profit of the fraud. Somewhere else in Ireland the guardians, through their analyst, Dr. Cameron, have detected 60 per cent. of water, and we may venture to hope that they will follow the precedent shown them at Abbeyleix.

**Accident Ambulances.**

THE *Philadelphia Reporter* announces that that city has established an ambulance system in connection with one of her great hospitals, that on the west bank of the Schuylkill. The station is in telegraphic communication with all the police stations, so that a summons for medical aid and for an ambulance may be sent from any section. A surgeon will be promptly despatched, with all needful appliances, to the scene of accident, and thus it is hoped much good may be done, and perhaps many lives may be saved.

**Pharmaceutical Qualifications in England.**

THE new regulations of the London Board of Pharmaceutical Examiners come into force on October 1 next. Candidates will be required to prove the possession of a practical acquaintance with the elements of qualitative analysis, which will probably be tested by the submission of certain solutions, the chief ingredients of which will have to be detected. Correct ideas in respect to doses, and a more accurate knowledge of the chemical and pharmaceutical processes by which Pharmacopoeia products are obtained, are the points of advanced severity which will henceforth be demanded. The regulation requiring a certificate that the candidate has attained the age of twenty-one will come into force on January 1, 1875, and that necessitating a previous three years' pupillage to the business on January 1, 1877.

**Priestley Celebration in America.**

THE *Chemist and Druggist* records the centennial of American chemists at the grave of Priestley, on August 1, which seems to have been an interesting, if a somewhat romantic event. Northumberland, on the banks of the Susquehannah, is said to be a beautiful spot, and there something like a hundred scientific chemists gathered to do honour to the memory of the extraordinary man who discovered oxygen that day a hundred years ago. Priestley's poor lot of chemical apparatus was on exhibition, and some of his descendants came from remote parts of the universe to meet the pilgrims. After a series of addresses in his honour, the assembly was ultimately adjourned in proper form until August 1, 1874.

**Hospital Saturday.**

THE weekly meeting of the Executive Committee of this fund was held on Saturday last, at St. John's Hospital for Skin Diseases. It was announced that in addition to the public meeting in the Guildhall, on Saturday, the 3rd of October, at which the Lord Mayor will take the chair,

there will be an open air demonstration in Hyde Park, on Saturday, 10th proximo, at which Archbishop Manning has promised to preside. It was further announced that permission had been given for collection boxes to be placed in each of the district post offices, and Capt. Mercier submitted a letter from Brigadier General Sir J. M. Adye, Director of Artillery, giving official sanction for collection boxes to be placed for voluntary contributions at the entrance gates of the Woolwich Arsenal. After the customary votes of thanks the meeting separated.

**Public Funeral of a Lady Hospital Nurse in London.**

ON Saturday the remains of Miss Louisa Eliza C. Coles, the lady superintendent of the British Nursing Association, and of the nursery departments of the Royal Free Hospital, were interred in Highgate Cemetery. The funeral consisted of an open hearse, the coffin being covered with a white velvet pall, followed by six mourning coaches and several private carriages, which contained General Sir Arthur Lawrence, K.C.B.; Major-General Eardley Wilmot, Major Elliott, Sir Kingsmill Key, Mr. Hart, Mr. Gant, Mr. J. D. Hill, and other gentlemen connected with the hospital and associations. The burial service of the Church of England was read by the Rev. J. Johnson, at the conclusion of which bouquets of flowers were placed on the coffin. General Wilmot briefly addressed the mourners in a most impressive speech, and after the singing of a hymn the assemblage slowly left the ground. The line of route was thronged by persons of both sexes who had been nursed under the supervision of deceased.

THE last of the elections caused by the decease of the late Joseph Ferguson, Esq., M.D., took place last week at the Westmeath County Infirmary, when Dr. Wm. Henry Middleton was unanimously elected as future surgeon to that institution.

IT is proposed to establish a College of Science and Literature in Bristol, and to incorporate with it the Medical School which has existed in that city for many years. The institution will be analogous to the Queen's College in Birmingham, and Owens College in Manchester.

MR. GEORGE MAHOOD FOY, F.R.C.S.I., has been unanimously elected to the Chair of Forensic Medicine in the Carmichael School of Medicine, Dublin.

MR. EDWARD WARREN, of Cairo, has been promoted by His Highness the Khedive of Egypt to the position of Chief Surgeon of the Egyptian Army.

THROUGH the exertions of Mr. Dunbar, M.P. for New Ross, there has been secured out of the Civil List Fund a pension of £50 a year, on their joint and several lives, for the sisters of the late Surgeon F. J. Macarthy, of the Army Medical Staff, who, when returning home, invalided from fever, on board the *Victor Emmanuel*, committed suicide by getting out of a porthole of the vessel.

THE French Government has offered a prize of £12,000 for the discovery of an effectual means of destroying the vine scourge, *phylloxera*; and a committee has been appointed to regulate the mode of competing, and to award the prize, should anyone prove himself the fortunate discoverer.

SURGEON-MAJOR PORTER, Assistant-Professor of Military Surgery at Netley, has been presented with the Bronze Cross by the French Societies for Aid to Sick and Wounded of Armies, in recognition of his services during the late Franco-Prussian war.

MR. PRIME-BARTLETT was presented last week with a testimonial of silver plate by the servants and nurses of the Brompton Consumption Hospital on the occasion of his resigning the post of Assistant Resident Medical Officer to that institution.

THE Manchester and Salford Sanitary Association has circulated some excellent instructions for the avoidance and prevention of enteric fever and scarlatina, and which are intended for general distribution.

THE executors to the will of the late Miss Hannah Brackenbury, who, it may be remembered, bequeathed the magnificent sum of £10,000 to Owens College, have kindly presented a donation of £500 to the University College Hospital, from the funds left by that lady for distribution to charitable purposes.

DR. THORNE THORNE, one of the Local Government Board inspectors, reports an epidemic of typhoid fever in the hamlet of Brierly Lane, Bradford. Seventy persons have already been attacked with the disease.

OF the £7,500 required for the proposed monument to Liebig, in Germany, nearly two-thirds have been subscribed.

THE Registrar-General reports during the week ending last Saturday, 5,343 births and 3,345 deaths in 21 large cities and towns of the United Kingdom. The average rate of mortality in these towns was 23 per 1000.

AN Indian telegram, received from Shillong last week, announces the death of Dr. Macdonald, Deputy Surgeon-General of that place. He was suffering from dysentery, and had only recently returned from furlough.

ACCORDING to the latest returns of the Registrar-General, "scarlet fever and small-pox continue fatally prevalent in Birmingham." So much importance do the sanitary authorities of Northampton attach to the outbreak that, acting under the advice of their medical officer of health, Mr. Alfred Haviland, they telegraphed to Birmingham on Saturday, advising the postponement of the Annual Onion Fair, which is usually attended by large masses of people from neighbouring towns, Northampton in particular.

OPPONENTS of alcoholism will not be gratified with the statistics. In the first half of the year 1874 duty was paid on 13,887,923 gallons of home-made spirits retained for consumption in the United Kingdom as beverage, being 662,639 gallons more than in the corresponding half of the previous year. The quantity so retained in England was 7,832,320 gallons, an increase of 586,449 gallons; in Scotland, 3,131,597 gallons, an increase of 182,655 gallons; in Ireland, 2,924,006, presenting the unusual return of a decrease amounting to 106,465 gallons. The quantity of foreign and colonial spirits, not sweetened or mixed, entered for consumption in the United Kingdom in the half-year, was 4,915,927 proof gallons, being 87,422 gallons more than in the corresponding half of the preceding year.

## Literature.

### KLEIN ON THE LYMPHATIC SYSTEM. (a)

THIS monograph of the lymphatic system is a most valuable addition to our knowledge of perhaps one of the most difficult subjects in histology. The volume now under consideration forms the first part of a series, and is devoted to the anatomy of the serous membranes, both in health and disease. The work is divided into two sections, of which the first, by far the larger, treats of the normal histology of the serous membranes; the second, of these structures under morbid conditions—viz., acute or chronic inflammation, including special reference to the pathology of tubercle. Portions of the work have already appeared in the *Quarterly Journal of Mic. Sci.* and *Centralblatt für Med. Wiss.* for 1872. The methods of preparation employed by Dr. Klein in these investigations have been principally those of staining with one-half per cent. solution of nitrate of silver, aided by the examination of the fresh tissues in serum, or one-half per cent. solution of chloride of sodium.

The first chapter treats of the endothelium of the free surfaces of the serous membranes, for a general description of which the reader is referred to the works of Recklinghausen, Auerbach, and Schwegger-Seidel, special attention being drawn to certain points that have not yet been sufficiently understood, the most noticeable point being the normal germination of the endothelium of the peritoneum and pleura mediastini of guinea-pigs, cats, dogs, and monkeys.

Instead of the elements being everywhere flattened, more or less hyaline cell plates, there are groups of polyhedral, club-shaped, or even short columnar cells, containing nuclei and sharp-outlined large shining nucleoli. These areas vary in size and number, being more abundant in young animals, and very much exaggerated in acute or chronic inflammation. Dr. Payne described these appearances in the human omentum in a paper communicated to the Medical Microscopical Society as early as June, 1873.

The nuclei of these germinating endothelial cells are generally in a state of division, and the appearances seem to justify the conclusion arrived at by Dr. Klein, that germination goes on with some rapidity, and, as a result, there are always to be found on these patches numbers of small, spherical, nucleated cells, resembling in every respect lymphatic cells, some wholly, others partly detached from the surface. At the end of this chapter Dr. Klein discusses the cause of the silver lines. He very clearly proves the commonly received opinion that the lines are due to the staining of an intercellular substance, in opposition to Schwegger-Seidel, and others, who have tried to show

(a) "Anatomy of the Lymphatic System." By E. Klein, M.D., Assistant-Professor at the Laboratory of the Brown Institution, London. Vol. I. The Serous Membranes. London: Smith, Elder, and Co.

that they correspond to a precipitation in a serous fluid which has accumulated in furrows on the surface of the endothelium, the endothelial cells being somewhat convex on their upper surface, and to Robinski, who altogether denies the existence of an intercellular substance.

The second chapter deals with the cellular elements of the ground substance. These elements are large, flat, branched cells, lying parallel to the surface, and in spaces which communicate with each other by numerous branched and unbranched canaliculi of different breadth and length. These canaliculi and lacunae contain small lymphoid corpuscles. This arrangement corresponds to the lymph canalicular system of Recklinghausen. Rollett maintains a similar view as regards the cellular elements of the cornea. The flattened cells of the ground substance are more closely accumulated in some parts, so as to form distinct nodules in the membrane; in the delicate reticulum of these nodules may be seen numbers of lymphoid cells, which are supposed to be offsprings of the branched cells of the stroma. These structures are sometimes converted into fat tracts.

In this chapter are also described the relations of fat tissue and the lymphangeal structures to the lymphatics. To render comprehensive the remarks on the development of fat—so far as it relates to the present subject—a description is given of the well-known gelatinous body composed of rudimentary adipose tissue, situated in the infra-orbital fossa of young rabbits and guinea-pigs.

The third chapter gives an account of the lymphatic vessels of the serous membranes; it is divided into five portions. The first consists of a description of the arrangement in the omentum and pleura mediastini. The lymphatics are of two kinds—vessels and capillaries; the former possessing valves and the endothelial elements fusiform in shape, whilst the latter are lined with sinuous endothelium and are valveless. The lymphatic vessels are principally found to accompany the blood-vessels; a vessel may have running along with it one or two lymph-vessels. It sometimes occurs that the blood-vessel runs within the lymphatic—the blood-vessel is, in fact, invaginated, so that in these cases at least there may be seen perivascular spaces; but the lymphatics are also distributed independently of the blood-vessels in many parts. Concerning their structure little is given but what is already known. In the lumen of the lymphatics there swim a number of corpuscles of various sizes, exhibiting amoeboid movements.

In this part of the chapter a very important question is discussed—viz., do the lymphatics form a closed system, or do they take origin among the tissues? Dr. Klein concludes that they, together with the serous cavities, form a closed system.

The lymphatic system of the centrum tendineum of the diaphragm constitutes the subject of the second part of this chapter; both the methods of demonstration and the results of Dr. Klein's investigation agree with those already published by Recklinghausen and Ludwig.

The third portion is devoted to a description of the lymphatic vessels of the mesentery. This membrane possesses two kinds of vessels—first, those which run from the intestine into the mesenteric glands, and, secondly, vessels which belong to the mesentery itself. The vessels of the first kind accompany the large blood-vessels to the intestine, and are provided with a rich circular muscular coat and numerous valves.

The relation of the lymphatic vessels to the surface of the serous membranes is considered in the fourth part, which contains, in addition to other matter, a description of the two kinds of stomata seen on the serous surface—stomata vera and stomata spuria or pseudo-stomata, the former of which represent the mouths of true lymphatics, and are again of two kinds, those representing the mouths of vertical lymphatics, channels leading into lymphatic vessels, and those leading into simple lymphatic sinuses. The latter consist of processes from the branched cells of the ground substance projecting freely between the endothelial elements, and are hence called stomata spuria. The stomata vera are lined by a special layer of more or less polyhedral cells.

The remainder of the chapter contains an account of the development of lymphatic capillaries.

The blood-vessels of the serous membranes form the subject of the fourth chapter. The distribution of blood-vessels in general is not gone into. The most important part of the chapter is the discussion of the development of blood-vessels and capillaries from the branched connective tissue corpuscles. Both blood and lymphatic capillaries develop by the vacuolation of these corpuscles, which may or may not be connected with pre-existing vessels by their long delicate processes. To Stricker is due the credit of pointing out this fact, who first observed it in the tadpole's tail; his observations have since been confirmed by Arnold.

For a description of the pathological condition we must refer our readers to the original memoir. Suffice it to say that in many instances the processes are of the same nature as those seen under normal conditions, but more active.

It is a matter of extreme difficulty to present a concise yet comprehensive account of the views held by the author, for, whilst admitting the work to be one mass of valuable facts, it is often a hard matter to understand clearly the sense of some passages; not a few are certainly enshrouded in some obscurity, from their erroneous construction. We think Dr. Klein would have done well to have entrusted the revision of the text to some one thoroughly conversant with the language. As a result, many passages no doubt would have been rendered lucid, and the dogmatic tone that pervades the whole work might have disappeared.

Great credit is due to the publisher for the admirable manner in which the work has been got up; the type especially is beautifully distinct. The work is embellished by ten plates, containing fifty-four elegant figures, engraved by Bach, of Leipzig. The expense of their production was borne by the Government Grant Committee of the Royal Society.

J. N.

## Correspondence.

### CRIMINAL ABORTION.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—Apropos of Dr. Whitmore's remarks on the above subject, published in the last number of your journal, the questions arise—How is it that in America, as in France, married people shirk, to a greater or less extent, the duties and responsibilities of paternity? and is there any danger of criminal practices—abortion, as in America, and systematic non-conception by means of "safes," Onanism, &c., as in France—taking root among ourselves?

The second question, I think, may be answered in the negative, as long as our present laws of inheritance remain in force: assimilate them (and this answers the first question) to those of the United States, France, and other countries where democratic ideas, pure and simple, prevail, and the results will be minimised families and ever-increasing vices of the most debasing kind.

Yours obediently,

9th September, 1874.

CAUSE AND EFFECT.

### THE NEW PUBLIC HEALTH BILL.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—The new Sanitary Act will soon come into operation. Do the dispensary medical officers intend leaving themselves to the tender mercies of Poor-law guardians, or will they have courage enough to refuse to discharge important and onerous duties unless properly recompensed for such duties? I know that seven-eighths of the dispensary districts are in as wretched a sanitary condition as my own is, and I know, too, that the medical officers of these districts will have an amount of arduous and offensive duty to perform if they wish to carry out conscientiously the sanitary reform which will be legally placed in their hands. I should not, perhaps, have applied the term offensive to these duties,

but I foresee the removal of many a nuisance which has been from time immemorial a pet to its proprietor, and I know on whom the blame will fall. The relieving officer or other subordinate will have more worldly wisdom than to say "I am the man."

One-half of our present salaries was mooted as proper recompence, but I say, "Wait till we get it."

September 17th.

A DISPENSARY DOCTOR.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—I would suggest that in the event of sanitary authorities offering to give inadequate salaries to medical officers (as they are sure to do), that those officers, while undertaking to perform the duties, should as a body be *unanimous* in refusing to accept such, and should at once protest to the Local Government Board as to their inadequacy. In my opinion, if they once commence with and remain quiescent in accepting low salaries, they will find it difficult to get them up afterwards, notwithstanding that but half the expense will fall upon the ratepayers.

Yours,  
MEDICUS.

Kilkenny, Sept. 17th, 1874.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—As the Public Health (Ireland) Act of the last session will soon come into operation, and the salaries of the sanitary officers be considered and fixed by the rural sanitary authority, will you kindly afford me some information on the following subjects:—

1. Is it compulsory on the guardians of the union, so soon as the Act comes into operation, to appoint the sanitary officer in each dispensary district under their control, as an idea is prevalent with some guardians that they are not limited by time to make such appointments, or that they need not make them at all provided that they do not consider that a necessity for such exists?

2. Are the dispensary medical officers *compelled* to accept the appointment at *any* salary a cheeseparing board of guardians may fix and determine?

3. If a dispensary medical officer refuses to accept the appointment without receiving a fair and reasonable salary, at least a salary equivalent to that granted by other boards, can they, the guardians, postpone or decline making any appointment for such district, or can they proceed to appoint a sanitary officer in his stead?

Hoping you will excuse this trouble, and at your earliest convenience enlighten an ignorant

DISPENSARY MEDICAL OFFICER.

1. The boards of guardians *must* appoint the dispensary medical officer to be the medical officer of health. They have no option, nor any discretion as to whether such an officer is required, and they must make this and other cognate appointments within a reasonable time, or the Local Government Board will make them for them.

2. The dispensary medical officers *must* accept the office at any salary which the guardians fix and the Local Government Board approve. We have every hope that an obviously insufficient assessment will not be permitted.

3. Already answered above.—ED. M. P. & C.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—The Public Health Bill is now law. Whilst it was in the stage of incubation the numerous readers of your independent journal must freely admit that it had your warmest advocacy, as well as that of the Irish Medical Association. It will no doubt be considered by you and the citizens of Dublin to be a great public boon as an effectual agent in quenching all the old hot-beds of disease, and in stamping out all infectious elements from both "urban" and "rural" districts. In my humble opinion the powers granted by the Bill will be utterly inert in suppressing the most fruitful sources of disease in rural districts. As long as lodging-houses can be crammed with the unwashed and wearied strollers, and as long as such lodging-houses have not a yard or rear of even the length or breadth of an ordinary man, or any form of sewer from the house beyond a small and shallow one, which I have so often seen choked in the centre of the earthen floor through which it runs to the open channel in the public street—so long as the laws of our country will

not enable the sanitary authorities to compel the owners of cabins to have them properly constructed both as regards sewage and otherwise, so long, I submit, will hot-beds of disease be found in rural districts. I am not here theorising, but am speaking from a practical experience of many years of the causes of disease in country parts. If the law will not permit the sanitary sub-officer to visit any one of these hovels, the occupier may order him out. Or if, on visiting it, and with the written opinion from the sanitary officer of the absolute necessity to have it put in a state fit for a human being to live in, that the sanitary authorities cannot compel the owner of the house to at once comply with the suggestions of the sanitary officer, it becomes evident that the nestlings of disease in rural parts will remain uncrushed. I will hope to see a thorough sewage system established by means of one deep sewer from every cabin leading into a large central one. Accumulations of filth surrounding cabins can be prevented, and thus indirectly the owners may be compelled to establish deep ash-pits. It might also be advisable to have a *dépôt* of disinfectants in every workhouse. The necessary disinfectants could be delivered at the several dispensary stations by the workhouse hospital patients' van; the latter would thus also undergo a process of disinfecting which, I think, would lessen the great objection that poor people have to be conveyed by it to the hospital. It is hoped by many that the sanitary authorities and the Local Government Board will adequately remunerate the sanitary officers for the important duties (of value to peer and peasant alike) now imposed on them.

I am, Sir, your obedient servant,

FRANK J. DAVYS, A.B., F.R.C.S., &c.

## Obituary.

### ARTHUR JACOB.

No section of his professional brethren will read with deeper regret the intelligence of the death of Arthur Jacob, which our pages this day mourn to record, than those who have known him through the intercommunication of its columns, and who—through a third of a century—have unswervingly testified their grateful reminiscences of his long and earnest services to themselves and their profession. At the advanced age of eighty-four—spared by Almighty Providence the distractions of disease or suffering—died, on Monday last, Arthur Jacob, the possessor of an European fame as an anatomist, an original investigator, a lucid and incisive writer, an ardent and disinterested advocate of the best interests of his professional brethren, an experienced and judicious diplomatist and legislator in matters affecting them. Three times President, and for a quarter of a century the trusted Councillor of the Royal College of Surgeons in Ireland, for fifty years a teacher with whose reputation men were proud to associate their names, he has carried with him to the grave the respect which all men unhesitatingly accord to unswerving integrity of purpose, unchallenged talents and unflagging ardour, and perseverance. With the simple mention of his name will rise up within the minds of his Irish compatriots a crowd of recollections now hallowed by his death—recollections which awaken to-day nothing other than gentle feelings and sorrowful respect for his memory.

With this simple record we lay aside our pen. The time and place were alike unfitting for formal eulogy, or the detail of his biography.

To utter more to-day would do dishonour to the solemnity of our thoughts, and would mar the feeling of full-hearted regret which the memory of his public life amongst them will reawaken within the breasts of the companions and pupils of the honoured dead.

## FRANCIS ANSTIE.

WE announced in our last the melancholy death of this distinguished physician, who was on the staff of our contemporary the *Lancet*, and editor of the *Practitioner*. Having had for years past personal acquaintance with the deceased, we fully endorse all that the *Lancet* says of his private worth and high professional attainments, from which we republish the following remarks, feeling acutely the grievous loss the profession has sustained in his death:—

"It is impossible, in dwelling upon the rare qualities which characterized Dr. Anstie, to separate the personal, which endeared him to his intimate friends, from the intellectual, by which his name became familiar to the profession and the public. He was a physician of the type which is the pride of English physic and the crown of our schools of medicine. Or rather it should be said he was a typical physician of this class. His intellectual culture was not inferior to his strictly medical culture, and this was of the highest. The one, in fact, formed, as it were, the fitting setting for the other. Complete in the technical knowledge of his profession, he brought to its application in actual life that happy combination of scientific and practical acumen, conjoined with a peculiar charm of manner, which make the physician in the truest and best sense of the word. Prompted by a thorough love of medicine, he laboured closely and hard at some of its most complicated problems, and he has left results of enduring value both scientific and practical. His scientific work is characterised by keen insight into the problems with which he dealt, and by a rare appreciation of the light in which his researches should be regarded, as contributing, on the one hand, to existing knowledge of the subjects to which they referred, and, on the other, to the furtherance of investigation. His practical work was distinguished by the skill with which he sought to deduce principles of treatment from pathological and physiological data, and rationalised necessary empiricisms. Widely read in the literature of his profession, he brought a richly stored memory to his editorial and literary duties. He was an eager upholder of the dignity of medicine, and an unsparing critic of whatever militated against the good name of the profession within or without its ranks. A clear and incisive style gave power to a pen which, if it were keen, was never unkind, and which has performed an active and influential part in all the great questions which have agitated medicine in its social and political bearings for some years past.

"The substantial fruits of Dr. Anstie's labours were about to be gathered when, in the earnest pursuit of a duty, he accidentally received the infection which killed him. Medicine, although rich in sterling workers, can ill afford to lose such a man, and the manner of his death aggravates the painful sense of his loss. It was too costly a life to have been sacrificed prematurely in so pitiful a way."

## NOTICES TO CORRESPONDENTS.

CORRESPONDENTS requiring a reply in this column are particularly requested to make use of a distinctive signature or initials, and avoid the practice of signing themselves "Reader," "Subscriber," "Old Subscriber," &c. Much confusion will be spared by attention to this rule.

## PRIVATE TEACHING IN STEEVENS' HOSPITAL, DUBLIN.

WE learn with regret that the information upon this subject published in our Students' Number was in some respects inaccurate. Dr. Tweedy is erroneously stated to undertake the preparation of pupils for the preliminary examinations of the College of Surgeons, and the name of Dr. Warren is omitted as teaching chemistry, materia medica, and botany. We the more regret the inadvertent insertion of a paragraph taken from last year's Students' Number, because, in respect to Dr. Tweedy, a similar erroneous opinion has prevailed in other quarters.

Dr. Tweedy is now an Examiner in General Education in the College of Surgeons, with which position private teaching would be obviously inconsistent. Dr. Warren is the recognised teacher of pharmaceutical subjects in Steevens' Hospital.

## UNIQUE OPHTHALMIC DISEASE (W. H. S.).—Declined with thanks.

DUREAM.—The dates of examinations in the Queen's University for the coming year are not yet accurately fixed.

L. M. (Hibernian Hotel).—Any recognised medical and surgical diplomas, with a diploma in midwifery, are sufficient qualifications to hold a workhouse hospital appointment.

Dr. K.—Space permitting, in our next. Thanks.

AMERICAN SUROCKY AND FEES.—A paragraph is just now going the round of the English laypapers to the effect that "a fee of 150,000 dollars (about £30,000) has been received by an American surgeon for removing a wen. The operation was performed with electric knives." Our readers will perhaps pardon us for not committing ourselves to an opinion on the subject; we have not yet been able to make up our minds as to which is the more wonderful—the fee or the operation.

## A MEDICAL ALLIANCE.

In our issue of the 9th inst. we drew attention to an announcement which proposed to establish "A Medical Alliance," for the purpose of mutual protection and defence in cases of false accusation and extortion, to which members of our profession are peculiarly liable. Before giving such a movement our support, we asked that the members of the committee and the hon. secretary should furnish their names as a guarantee of its genuineness, and a proof that the remedy is not worse than the disease. In reply thereto we have received a preliminary prospectus, together with a letter signed J. B. Budgett, M.D., Hon. Sec., in which it is proposed to convene a public meeting of the profession on the subject a few days hence, the temporary offices of the society being 66 Ludgate Hill, London. Upon reference to the *Medical Register* of this year the name of J. B. Budgett, M.D., does not appear. Perhaps Dr. (?) Budgett can inform us the reason of such omission.

## THE SEWAGE QUESTION.

A CORRESPONDENT sends us a long letter upon this subject but as it has already been so fully and ably discussed in our columns in Dr. Letheby's "Notes and Analyses" we can only give a few excerpts.

Speaking of sewage farming, he remarks that "experiments may do in outlandish places, but let them be adopted in the neighbourhood of towns, exposed to the rays of the sun, the decomposition will produce a malaria which, wafted by the wind, will carry the spectral gloom—cholera, typhus, scarlet, and other fevers, small-pox, diphtheria, dysentery, and allied disorders—among the neighbouring residents, ready to pounce upon every one, weak or strong, according to constitution, &c., and with fatal effect. Therefore, let such parties beware, or they may breed a plague in the land, and be guilty of wholesale manslaughter among young and old before they are aware of it. Serious as this may appear, it is nothing but the truth, and must be avoided, as, if extensively used in such a form these results are sure to follow. It may be argued that the earth is a great disinfectant in itself. Granted; but to be available for such a purpose the sewage would have to be constantly ploughed in and mixed with it, a thing impossible during the growth of crops."

ERRATA.—"Medical Science and Medical Teaching."—Mr. Barraclough, the author of these papers, which have recently appeared in our columns, wishes to correct one or two errors which occurred through his unexpected absence from town when the proofs were sent him. Page 106, for "impressed" read "expressed;" page 131, for "abusive" read "obtrusive;" page 178, for "exercising" read "exorcising."

COMMUNICATIONS, Enclosures, &c., have been received from Mr. Arthur Jackson, Sheffield. Dr. Haldane, Edinburgh. Dr. Delvalle, Paris. Dr. McCall Anderson, Glasgow. Dr. Habershon, London. Mr. W. Allingham, London. Dr. Burness, London. Dr. Duncan, Glasgow. Mr. Stocker, Guy's Hospital. Mr. G. Cowell, London. Dr. Muter, London. Dr. Langley, London. Dr. Fitt, Bath. Mr. Alexander, Hammermith. Dr. Budgett, Eastbourne. Dr. Rogers, London. Mr. Barraclough, Kennington. Mr. Hogg, London. Dr. Lombard, Leamington. Dr. J. P. White, Albany, U.S.A. Dr. Fennelather, Tipperary. Dr. Morell Mackenzie, London. Mr. Gaskoin, London. Dr. King, London. Dr. Kent Spender, Bath. Mr. Adams Parker, Birmingham. Mr. Whitford, London. Mr. Henry Dobbin, Brompton. Mr. Mills, Bourne. Mr. Barclay, Birmingham. Mr. Faulkner, St. John's Wood. Mr. Black, Edinburgh. Mr. Clowes, Norwich. Dr. Marshall Lamberhurst. Dr. Morgan, Dublin. Dr. J. Farrish, Baltimore. Mr. Furneaux Jordan, Birmingham. Dr. Cameron, Dublin. Dr. Quain, London. Dr. Balhazar Foster, Birmingham. Mr. Miller, Wrentham. Dr. Leadman, Leeds. Mr. Clifton, Fordingbridge. Dr. Donkin, Paris. Mr. J. H. Jones, Talsarnau. Dr. Sirarol, Le Docteur Mandl, Paris. The Registrar of the Royal College of Physicians of London. Dr. Mapother, Dublin. Dr. Quinan, Dublin. Mr. Weiss, London. Mr. Baker, London. Dr. Cesar, Shizley. Dr. Dawes, Dresden. Dr. Eddison, Leeds. Mr. Keith, Edinburgh. Dr. Howes, Dunlain. Dr. Milner Fothergill, London. Mr. Dickinson, Brighton. Mr. Hird, Charing Cross Hospital. Dr. Binder, Bristol. Dr. James, Spa. Dr. Drysdale, Folkestone. Dr. Green, Peckham. Dr. Higginson, Donaghadee. Mr. Grace, Bristol. Dr. Kennedy, Dublin. Dr. Davys, Swords. Mr. John Cooke, Thurles. Mr. Thomson, Alfordie, &c., &c.

## BOOKS, PAMPHLETS, AND MEDICAL JOURNALS RECEIVED.

An Introduction to Pharmaceutical and Medical Chemistry. By John Muter, M.D., M.A., &c.

How to Restore Muscular Movement Generally. By F. G. Bennett, M.R.C.S. London: Whittaker and Co.

Free Phosphorus in Medicine. By J. A. Thompson, M.R.C.S. London: H. K. Lewis.

A Treatise on the Relief and Cure of Spinal Curvatures, &c. By F. G. Bennett, M.R.C.S., L.S.A.



## VACANCIES.

University College, London. Professorship of Comparative Anatomy and Zoology. Full information of Mr. Robson, at the College.  
Metropolitan Free Hospital. Assistant House Surgeon. No salary.  
St. Marylebone, London. Medical Officer for the Christ Church District. Salary, £230 per annum. Application to be made to the Clerk, at the Union Office.

Queen's Hospital, Birmingham. House Surgeonships. Salary, £50 per annum, with board and residence. Address the Secretary.  
Bedford General Infirmary. House Surgeon. Salary, £100 per annum, with board and residence. Testimonials to the Chairman of Committee.

Three Counties Pauper Lunatic Asylum. Resident Medical Superintendent. Salary, £800, with furnished house. Applications to the Clerk of Committee, St. Neots, Hunts.

Lutterworth Union. Medical Officer. Salary, £104 per annum for the District, and £30 for the Workhouse. Apply to the Clerk of the Union.

Ripon Dispensary. Resident Medical Officer. Salary, £100 per annum. Full particulars of the Hon. Sec.

Liverpool Dispensary. Assistant House Surgeon. Commanding salary at £108 per annum, with apartment's. Address the Secretary.

St. Mary's Hospital, Manchester. Medical Officer. Salary, £80 per annum, with board and residence. Applications to the Secretary.

Royal Albert Hospital, Devonport. Junior Surgeon. Honorary.

Kent. Public Analyst. Remuneration by fees. Address the Clerk of the Peace, Maidstone.

## APPOINTMENTS.

BRANWELL, B., M.D. Ed., Physician to the Newcastle-on-Tyne Infirmary.

CATTELL-JONES, T., M.R.C.S.E., Medical Officer for the newly-formed Spepperton District of the Staines Union.

CLARKSON, J. W., M.R.C.S.E., L.R.C.P.L., House Physician to St. Thomas's Hospital.

DAVIES, H. W., M.R.C.S.E., Resident House Surgeon and Registrar to the Cancer Hospital, Brompton.

DEARLEY, H. H., M.R.C.S.E., L.S.A.L., Medical Officer for the Hoxne District of the Hoxne Union, Suffolk.

GAMER, J. E., M.B., C.M., Senior House Surgeon to the Preston and County of Lancaster Royal Infirmary and Dispensary.

GENOVELL, S., M.B. Univ. Glas., Assistant to the Professor of Medicine at the University of Glasgow.

GUTHRIE, G., M.B., C.M. Ed., Assistant Medical Officer to the County Asylum, Burntwood, Litchfield.

HEWARD, J. M., M.R.C.S., L.S.A., Medical Officer to the Stamford Urban Sanitary District.

IRVING, C., M.R.C.S.E., House Surgeon to the Great Northern Hospital.

MAUNSELL, J., M.D., Qu. Univ. Irel., L.R.C.S. Ed., Assistant House Surgeon to the Liverpool East Dispensary.

MAVOE, W. E., M.R.C.S.E., L.R.C.P.L., House Physician to St. Thomas's Hospital.

SCHOLER, R. S., M.B., C.M. Ed., Assistant House Surgeon to the Stockport Infirmary.

SMITH, W., L.R.C.P. Ed., Junior House Surgeon to the Preston and County of Lancaster Royal Infirmary and Dispensary.

WILSON, H. C., M.D. Qu. Univ. Irel., an additional Resident Surgeon at the Birmingham General Dispensary.

## Births.

CULHANE.—At Killelane Cottage, Newcastle West, the wife of Patrick Culhane, M.D., of a son.

HIGGINSON.—On the 9th inst., at Donaghadee, co. Down, the wife of H. Talbot Higginson, M.D., L.R.C.S., of a son.

KING.—On the 14th inst., in Harley Street, London, the wife of Dr. Robt. King, of a son.

## Marriages.

EDIE—MURRAY.—On the 9th inst., at Belmont Street, Aberdeen, Arthur Wellesley Edie, M.D., of Wimpole Street, Cavendish Square, London, to Mary, youngest daughter of Andrew Murray, Esq.

MESSER—MAY.—On the 15th inst., at the Church of St. James the Great, Devonport, John Cockburn Messer, M.D., Staff-Surgeon R.N., H.M.S. *Implacable*, to Elizabeth, eldest daughter of Joseph May, F.R.C.S., J.P. of Devonport.

SMITH—DOWSON.—On the 10th inst., at St. Paul's Church, Clifton, Bristol, R. Shingleton Smith, M.D., of Rokeby House, Clifton, to Elise, only daughter of the late H. Cox Dowson, Esq., of Bayonne.

TOMLINS—EVETT.—On the 20th inst., at St. Michael's, Handsworth, James Tomlins, M.R.C.S.E., L.R.C.P. Ed., Newport, Shropshire, to Julia, youngest daughter of James Evett, Esq., of Handsworth.

## Deaths.

CARTER.—On the 14th September, at Wimpole Street, in his 11th year, after a lingering illness, Arthur Septimus Becher, the beloved son of Robert Brudenell Carter, F.R.C.S.

CASS.—On the 2nd September, Edward E. Cass, M.R.C.S. Eng., L.S.A. Lond., of Gooles, aged 31.

GORDON.—On the 8th September, at Heath Cottage, Charlestown, Aberlour, George Gordon, L.R.C.S. Edin., Surgeon R.N.

HIGGINSON.—On the 10th September, at Donaghadee, the infant son of H. Talbot Higginson, M.D., L.R.C.S.I.

KING.—On the 12th September, Daniel King, M.R.C.S. Eng., of Bideford, aged 28.

MURRAY.—On the 16th September, at Wickham, Hants, John Murray, M.A., M.D.

PAXTON.—On the 10th August, on the homeward voyage from the Cape, William Albert Paxton, M.B., surgeon steamship *Adriatic*.

SOMERVILLE.—On the 12th September, Samuel Somerville, M.D., of Hart Street, Edinburgh.

## MIDDLESEX HOSPITAL COLLEGE DINNER.

The ANNUAL DINNER of the past and present Students of the Hospital and their friends will take place in the usual room at St. James's Hall on October 1st, at 6.30 p.m., JOHN TOMES, Esq., F.R.S., in the Chair. The cost of the Dinner will be 7s. 6d., exclusive of wine. Gentlemen intending to be present are requested to communicate with the Dean on or before September 30th.

ROBERT KING, B.A., M.B., Dean.

## ST. MARY'S HOSPITAL MEDICAL SCHOOL.

Opening of WINTER SESSION, October 1st, 1874. Introductory Address by Mr. EDWARD OWEN.—For further particulars apply to the Registrar at the Hospital, or to

A. B. SHEPHERD, M.B., Dean of the School.

## ST. MARY'S MEDICAL SCHOOL.—Three OPEN

SCHOLARSHIPS and TWO EXHIBITIONS, October, 1874.—For particulars apply to the Dean, St. Mary's Hospital, Paddington, W.

## UNIVERSITY OF LONDON.—MATRICULATION and

PRELIMINARY SCIENTIFIC EXAMINATIONS. SPECIAL CLASSES for these Examinations are held at ST. BARTHOLOMEW'S HOSPITAL. The Classes are not confined to Students of the Hospital.

A Class for the Matriculation Examination is held twice in each year, from October to January, and from March to June.

A Class for the Preliminary Scientific Examination is held from January to July.

For particulars, application may be made personally or by letter to the Warden of the College, St. Bartholomew's Hospital.

## ST. BARTHOLOMEW'S HOSPITAL and COLLEGE.

SCHOLARSHIP in SCIENCE. Two Scholarships in Science have been founded at St. Bartholomew's Hospital. 1. An Open Scholarship of the value of £100, tenable for one year, to be competed for in September. The subjects of examination are—Physics, Chemistry, Botany, and Zoology. The successful candidate will be required to enter at St. Bartholomew's Hospital in October next. 2. Preliminary Scientific Scholarship of the value of £50, tenable for one year, to be competed for in October next by Students of the Hospital of less than six months' standing. The subjects of examination are identical with those of the Open Scholarship. For further particulars and syllabus of subjects, application may be made, personally or by letter, to the Warden of the College, St. Bartholomew's Hospital.

## ST. BARTHOLOMEW'S HOSPITAL and COLLEGE.

The WINTER SESSION will begin on THURSDAY, October 1st. The Clinical Practice of the Hospital comprises a service of 710 Beds, inclusive of thirty-four Beds for Convalescents at Highgate.

Students can reside within the Hospital walls, subject to the College regulations.

For all particulars concerning either the Hospital or College, application may be made, personally or by letter, to the Resident Warden of the College.

A Handbook will be forwarded on application.

## THE LONDON HOSPITAL and MEDICAL COLLEGE.

The next WINTER SESSION will commence on Thursday, October 1st, 1874, when the Introductory Lectures will be given at 3 p.m. by SAMUEL FENWICK, M.D., Assistant-Physician to the Hospital.

General Fee to Lectures and Hospital Practice, 90 guineas, payable in two instalments of 45 guineas each. Library Fee, £1 1s. Special entries can be made to Lectures or Practice.

The Hospital contains 600 beds. The In-patients during 1873 were 5,613, and the Out-patients 45,908; total, 49,421.

The Following Prizes and Appointments are offered, without any further payment, to Students paying the general fee of 90 guineas:—

Seven Scholarships to be offered for competition in the Winter Session:

1. A Scholarship of £30 to the Student of less than three months' standing who passes in October the best examination in the subjects required at the Preliminary Examination.
2. A Scholarship of £30 to the Student of less than three months' standing placed second in the above examination.
3. A Scholarship of £30 in Human Anatomy for first year Students; to be awarded in April, 1875.
4. A Hospital Scholarship, value £25, in Anatomy, Physiology, and Chemistry, for first year and second year Students; to be awarded in April, 1875.
5. A Hospital Scholarship, value £30, for Clinical Medicine; to be awarded in April, 1875.
6. A Hospital Scholarship, value £30, for Clinical Surgery; to be awarded in April, 1875.
7. A Hospital Scholarship, value £30, for Clinical Obstetrics; to be awarded in April, 1875; and a Prize of £5 to the Student who has attended most Midwifery cases for the Hospital during the preceding twelve months.

The Duckworth Nelson Prize, value £10, for Practical Medicine and Surgery (Biennial), 1875.

Money Prizes to the value of £80 given annually by the House Committee for zeal in Dressing Out-patients and knowledge of Minor Surgery.

For particulars as to appointments, &c., see the Prospectus, which will be forwarded on application to the Bedell of the London Hospital Medical College, Turner Street, E.

Further information may also be obtained from Mr. JAMES E. ADAMS, Treasurer, 10 Finsbury Circus, E.C.; or Mr. WARREN TAY, Vice-Dean, at the Medical College.

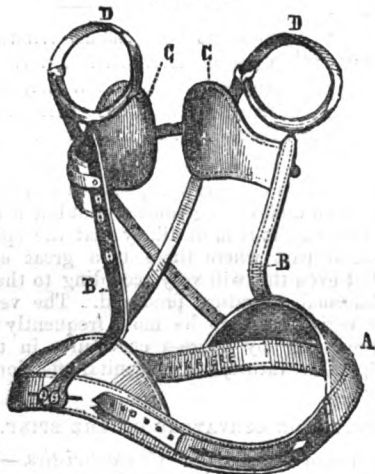




the mechanical method *in toto*, he would likely say mechanical instruments are worse than useless, and not to attempt to use them. Then comes the question, who are you to mind, for we have two diametrically opposed to each other; one would appear to be right and the other wrong. In my opinion they are both wrong, and to do any good I have found a medium course will frequently work out the happiest results. All plans no doubt have certain advantages, and occasionally one case will be benefited more by one line of treatment than another.

If this curvature arises early in life, and occurs in a debilitated scrofulous subject, good tonics and a generous diet should be ordered. Sea-bathing gives great tone to debilitated muscles. An instrument or mechanical appliance in a weakly-developed child, whose muscles are flaccid, is certainly contra-indicated, as the compression and weight of an instrument only limits and prevents healthy development and muscular action; but in the curvature produced by rickets, mollities ossium, or when the curvature has reached its most aggravated form, a well-fitting appliance is frequently of great use, and gives good support. The recumbent and lying position in some cases should be enforced, but to give any more than a brief outline of the treatment would be useless, for every case requires frequently a variety of methods and plans of treatment to correct the existing and prevent a further increase of the

FIG. 15.



A Simple and most Useful Mechanical Spinal Support.

deformity. Fig. 15 is an appliance that frequently is of use in the treatment, and on examining this minutely it will give an idea of the principle of all spinal and mechanical supports—viz., a pelvic band, to which is attached upright stems, ending, in some cases, like crutch-handles, and on which are attached steel padded plates and bands to press on the projecting portions, and gives general and local support in the different situations requiring it.

Fig. 16 also represents a spinal corset, made with vulcanised india-rubber bands.

#### ANTERIOR CURVATURE OF THE SPINE.

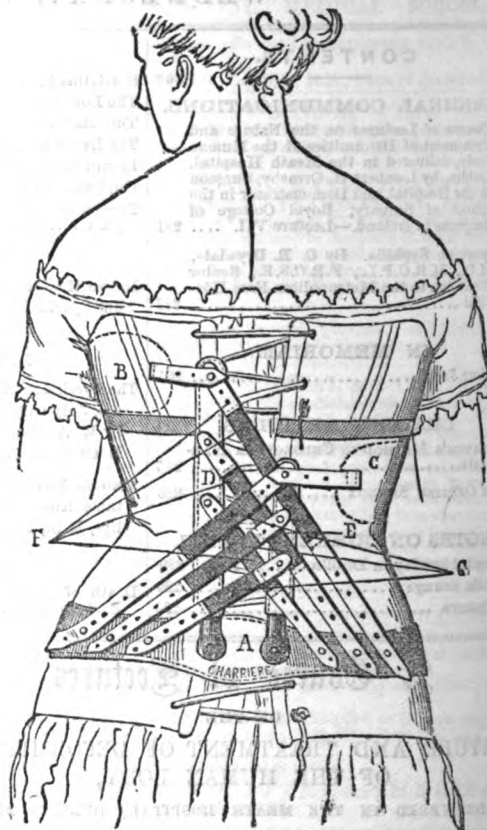
**Definition and Anatomical Characteristics.**—This distortion is by no means so common as the last-mentioned. The curvature takes place principally in the lumbar region, and the physiological lumbar curve is greatly increased, with a convexity in the forward direction, and the person thus affected walks with a most unsteady gait. Women seem to be more often affected than men; in fact, this holds good with all the spinal curvatures. As I said before, this occurs in the lumbar region, and after a time is a predisposing cause to distortion in the other regions.

**Causes.**—Disease, debility, calling or trade, carrying heavy weights on the head. Rickets is a most common cause. It is sometimes said to be congenital, as it is sometimes seen in connection with spina bifida. Obliquity of

the pelvis or one leg shorter than the other are said to be causes.

**Treatment.**—Much will depend on the cause, whether of debility or actual disease. The recumbent position—"laid on the broad of the back," as the saying is—is by no

FIG. 16.



A Spinal Corset, with Vulcanised India-Rubber Bands.

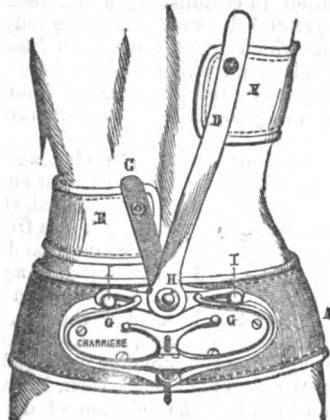
means a bad method, for we know that on assuming the lying posture we more or less decrease or obliterate the curve altogether. The "recumbent position" for a continued time is no doubt, if the health will allow of it, the proper and most useful line of treatment, and most likely to do more good than anything else. Spinal supports are recommended; but I do not think much advantage is gained by their use.

#### LATERAL CURVATURES OF THE SPINE.

**Definition and Anatomical Characters.**—This, of all curvatures of the spine, is the most important, as it is perhaps more frequently met with than any other. It consists in a deviation of the spinal column in a lateral direction in the form of curves, which are termed, as they occur in order, primary and secondary, which must arise, as a matter of course, to preserve equilibrium when the body is in the erect position. With this curvature there is always associated more or less horizontal rotation of the individual vertebrae in the situation of the curve, which varies as they are removed from the centre of the primary curve. The rotation occasionally increases to a considerable extent, so that the anterior portion of the bodies rotate in the direction of the curve, until they are opposite to the natural position of the transverse processes; and, in like manner, the spinous processes partake of a rotation in the same way, until they are opposite to the natural position of the transverse processes on the opposite side. Many causes have been assigned for this rotation by different authors; but it seems to me that it is a natural consequence of the abnormal curve to preserve equilibrium,

acted on by the various muscles having attachment to the spine or to the ribs, which anatomically have a twofold attachment to the vertebrae, and muscles inserted into or arising from, may be said to exert considerable power on the spinal column, although in an indirect manner. Anyone conversant with the muscular system in the back, with a little consideration, can easily understand in what manner the action of one set of muscles will facilitate by their

FIG. 17.



Spinal Mechanical Support.

action the production of abnormal curves, and he will also see that the action of muscles on both sides act in such a beautiful and harmonious way as to keep the healthy spinal column in a perfect manner, so as to preserve its natural curves for the purpose of equilibrium, now knowing the muscles act on each side in perfect harmonious antagonism in a healthy, strong, robust subject. On the other hand, take, for example, the case of a weak, delicate, scrofulous, rickety subject, who leads a sedentary life, compelled to remain in a habitual oblique position in a factory, workshop, or over a sewing machine; add to that slight paralysis of the muscles on one side, induced by the position, and you have at once, without looking for other difficulties, or endeavouring to propound far-fetched and unpractical theories, the common-sense and every-day occurrence of the way such curvatures are produced.

**Causes.**—These may be divided into the predisposing and exciting. 1. Predisposing disease, such as scrofula, rickets, which I may mention most frequently, gives rise to curvature of the spine. Mollities ossium also more or less predisposes, caused by accident, disease, one leg shorter than the other; this is ascribed by authors on the subject as a most common cause—a fact which I may mention my experience is also in unison with. The habit that some people fall into unconsciously of resting on one leg when they stand for any time has also been ascribed as a most frequent cause; but it must be understood that the simple standing in such position by a healthy person is not at all likely to be followed by any bad consequences; but the weak and delicate, particularly girls between the ages of 11 and 17, stand in such a position designedly for the purpose of endeavouring to remove the lassitude and weakness they experience in their backs and loins. Such a practice, by repeated acts, develops a habit which, in due course, causes the spine to acquire a certain "set." The bony column being distorted, the action of all the muscles inserted into it are more or less disarranged, and act in a very irregular manner, and do not antagonise each other at all, and in many cases facilitate by this irregular action the production of an abnormal curve if not developed already; and considerably increasing it if primarily produced, and by degrees the whole trunk, as a secondary consequence, assumes a most deformed, unsightly-looking appearance, the thorax becomes considerably drawn to the affected side, respiration is occasionally very much impeded, the ribs are separated and drawn backwards and upwards.

Sex has a great deal to say in influencing this deformity. It is nearly always seen in girls. To see it in boys is most uncommon. Delicate girls belonging to the scrofulous diathesis, generally before or about the commencement of the menstrual period, is the most common time to see symptoms of incipient curvature beginning.

2. **Exciting Causes.**—A trade or calling that compels the person so following it to lead a very sedentary life, and also when working to place the spine and trunk in an oblique and trying posture, want of healthy out-door exercise. Those females who habitually over-indulge in horse exercise, for it only requires a moment's consideration to understand the very distorted state the spine must assume to maintain equilibrium in the sitting posture when the female form rests on the lady's side-saddle, this has, in very delicate females, been a most exciting cause in producing such lateral curvatures. In my saying this, I trust, however, I may not be understood to depreciate in the slightest degree such healthy exercise, for of all others I consider none more useful and enjoyable, and in moderation nothing tends more to brace up and enliven delicate constitutions; but its *abuse* and not its *use* I would warn you against.

**Signs and Symptoms.**—When lateral curvature has existed for any time it is most obvious. On inspection the spinal column can easily be seen to be bent to one side or the other, with a slightly apparent appearance of the formation of a secondary curve. The side most affected is the right, which frequency has been ascribed to people using their right hand and arm more than the left. However, the deformity in the incipient stage is more obscure, and the signs appear occasionally in a very slow and gradual manner. If the right side is affected the right shoulder appears, on minute examination, considerably elevated, and is what is termed "growing out," whereas the left is, at the same time, materially depressed and flattened. A very fair way of judging is with a pen and ink, or red chalk, to begin from the spine of the first dorsal to the last lumbar, and draw a line passing through each spine between those points, and if there is any perceptible change it will be easily observed at a glance by the direction of this line. As the distortion advances, horizontal rotation of the bodies of the vertebrae takes place and renders the deformity quite palpable; the body also acts secondary to the spine in appearing to move in an upward direction, and rendering the scapula and thorax elevated and raised on the affected side, leaving the lateral aspect of the ribs and thorax on the non-affected side quite hollow and sunken. Respiration, owing to the change in the thoracic cavity, becomes, after a time, considerably impeded, as all the viscera and large arteries in the thorax are more or less displaced in order to accommodate themselves to their new distorted position the pelvis also becomes oblique, and partakes in a secondary manner the effect of the primary displacement, and this obliquity renders the passing of catheters in the male, or performing any midwifery or obstetric manipulation in the female a matter of considerable difficulty. Curvature in the incipient stage generally disappears when the person is placed in the recumbent position. After a time well-marked symptoms of cachexia and anemia set in, the skin is pallid and unhealthy-looking, there is a weakness and lassitude always complained of in the loins and back, attended with loss of appetite, muscular emaciation, and general symptoms of debility.

(To be continued.)

## REPORT ON SYPHILIS.

By C. R. DRYSDALE, M.D., M.R.C.P.L., F.R.C.S.E.,  
Senior Physician to the Metropolitan Free Hospital.

DR. FOURNIER'S LECTURES (continued).

Quite on the contrary with tertiary syphilitic affections—there is none in the enormous majority of cases, as

we have previously established. In some very rare circumstances only, and these rare enough to be qualified as exceptional, the ulcerations awaken but little glandular affection, when they result either from tertiary gummy infiltration or from an inflammatory or strumous complication. But, in these same cases, that which is produced is an affection of the glands of another kind, the characters of which I will describe to you in detail apropos of tertiary gland affections. This adenopathy is different from that of the chancre; it presents generally neither the indolence, the hardness, nor the multiplicity of this. Thus, putting aside exceptional cases, and concerning ourselves merely with cases often seen, the diagnosis may be established generally on consideration of the glands, and is summoned up thus: with the chancre, characteristic glandular affection; with the tertiary syphilitic affection, no adenopathy.

2. *Concomitant Manifestations.*—This consideration may be significative, and very much so. But if, for instance, there is produced simultaneously with the syphilitic appearance resembling chancre another clearly syphilitic manifestation, and tertiary in character (such, for instance, as ulceration of the pharynx), it is clearly only a consecutive manifestation, a tertiary symptom; for common observation shows it, and with the unanimous admission of all writers on syphilis, we never see at once appear on the same person a hard chancre and a lesion of tertiary character. That is not found in nature, and does not exist. This consideration alone clears up the diagnosis in certain cases.

For instance, a patient was affected for a fortnight past with a chancre like ulceration of the glando-preputial space. The lesion was circumscribed, indurated, and recalled exactly the classical character of the chancre. Anyone might have been deceived by it. But, in addition, the patient had at the same time been affected with a gummy syphilitic tumour on the back and on the tongue. The sole fact of this appearance at the same time of manifestly tertiary symptoms on the back and tongue clearly established that the gland lesion was of the same form, that is, a tertiary syphilitic symptom like a chancre.

Unfortunately, this recourse to concomitant accidents is not always possible; then there is nothing to be gained by this symptom.

3. *Ultior Evolution.*—The ultior evolution has no less value in determining the nature of the accidents; it is in some way the criterium of them. After a chancre there is shortly an explosion of what is called the secondary series, that is, multiple, disseminated manifestations, spread over the patient, and of well-known aspect. After the tertiary chancriform symptom there is either absence of all symptoms or tertiary accidents in other places.

Such is the *résumé* of the elements on which we may establish the diagnosis of tertiary symptoms and indurated chancre. Well, gentlemen, do not be deceived in this, that is an important part of diagnosis, essential in two ways, as you are about to see.

In the matter of practice, firstly, the error which consists in mistaking an ulcerated chancriform tertiary symptom for a chancre makes us commence a treatment which is that of the diathesis when it is born, and not that of the tertiary stage.

In the matter of doctrine, in the second place, the same error conducts to this: a new contagion of syphilis on a syphilitic field, a syphilis added to a former syphilis, that is to say, double syphilis. Now, this error is committed, and that not unfrequently. More than once practitioners have taken for indurated chancres relapses of secondary or tertiary syphilitic affections, indurated tertiary affections of chancre form, and have hence concluded that syphilis can be renewed at short intervals, or even be tripled on the same subject, whilst in reality the cases of syphilitic reinfection remain in the condition of facts rigorously possible, but absolutely exceptional.

Analyse the few cases (cases too rare, alas! showing the extinction of syphilis; it were to be desired they were more numerous), examine, I say, the few cases of double

syphilis which have been published by various authors, and you will remain convinced, after minute examination, that several of these pretended relapsing chancres were nothing more than indurated syphilitic symptoms. Many, indeed, by their own symptoms, and their general evolution, by the affection of the glands and ulterior accidents, exactly answer to the indurated syphilitic affections which I have just spoken about. Besides, we do not see in the description of cases to which I allude that anyone has occupied himself in establishing a differential diagnosis between the pretended chancre and the indurated syphilitic symptoms which might have been like it. That at least is a desideratum which makes these observations more than suspicious, and which takes from them all or part of the meaning which their authors have attached to them.

From what we now know, from what we know of tertiary indurations, it should now no longer suffice to recognise on a syphilitic patient a lesion isolated, circumscribed, hard, and chancre-like, as resulting from a fresh contagion. Certainly this lesion may be a chancre, and I see no obstacle to this; I raise no *a priori* objection against it. But it may also be that this lesion may not be a chancre, that it may have merely the look of a chancre, its mark and general appearance; it may be, in short, that it is but a chancre-like syphilitic symptom, or pseudo-chancre. The knowledge of the pseudo-chancre, then, introduces an element of a new kind into the question of double syphilis. And this element is the diagnosis of the true indurated sore, and of the syphilitic symptoms which may simulate it. Nevertheless, gentlemen, do not conclude from this that from prejudice I refuse the possibility of syphilitic reinfections. I should have expressed myself ill if I left you with this idea. I do not say that syphilis may not double itself. Far from that. I believe in the possible relapse of the disease, and I demand with all my heart facts proper to demonstrate this double relapse; only I ask for demonstrative and probative facts. When observations of this kind present themselves I submit them to a severe analysis, for to be accepted they ought to rest on a collection of irrefutable proofs. It is because I would desire these observations to be as demonstrative as possible that I wish to tell you what they ought to be so as to be beyond criticism. And it is in this view that in what now concerns us I have tried to establish, that the pseudo-chancre, unrecognised in its species as an accident, may resemble a true chancre and resemble a second infection.

3. A third lesion, which we ought to place on a parallel with tertiary syphilitic affections, when ulcerating, is the *cancroid*. The *cancroid*, in its ulcerative periods, may, in the male especially, simulate tertiary lesions. Needless to say what interest there is in distinguishing them. Error, indeed, in such cases conducts either to a grave operation, a very grave one, from the mutilation which ensues, and an operation, the more to be regretted because it might have been supplied, and well supplied, by the administration of specific treatment, or leads to an expectation not less dangerous; or, again, to antervention of specific treatment, having the grave evil of deferring a necessary operation and rendering the operation later inaccessible to surgical methods.

The errors committed in such cases are pretty frequent, and that for a very simple reason, that is, because cancer and tertiary genital affections are rather rare affections, little described, some varieties of which have not yet found a home among our classics. I hear from M. Ricord that he has had several times to suspend and to prevent operations which had been proposed for pretended cancer of the penis, which were nothing but simple syphilitic affections, and were quickly cured by specific treatment.

And what operation had been proposed in the cases observed by M. Ricord? Amputation of a part of the penis, or even of the whole penis. Thrice, for my part, I have been fortunate enough to cure in this way lesions of the penis which had been diagnosed cancerous, and for which the probable necessity of an operation had been thought of.

Such was the case, for instance, of a young foreign officer, to whom the doctors across the Rhine had proposed the amputation of the penis for a very curious lesion of the meatus, reputed cancerous, and being in reality only syphilitic. This lesion, which was eight or ten months old when I saw it for the first time, had hollowed out the meatus so as to dig in the top of the gland a kind of funnel at least one and a half centimetres deep. Round this the infiltrated walls of the gland were hard, and of a dark red, almost violet in hue. Submitted to specific treatment, with simple dressings, with iodine ointment, this young man was cured very well without operation, but, of course, with a persistent deformity. By what signs, then, shall we differentiate the ulcerated cancrroid from tertiary ulcers? Several orders of considerations may serve this diagnosis:—

1. *Commemoratives.*—With the cancrroid, save by coincidence, there is absence of anterior syphilitic affections; with tertiary syphilitic affections or anterior accidents.

2. *Mode of Evolution.*—With the cancrroid, evolution is much slower in kind, and the ulceration is preceded by a rather long period, during which the lesion shows itself in the state of a dry tumour, hard and not ulcerated. For several months, sometimes for a year and more, the cancer remains, or may remain, in the mushroom state, or tuberoso tumour, vegetating with dry surface, non-ulcerated. There is nothing like this in tertiary syphilitic affections, which either ulcerate at once, originally (ulcerated form), or develop infiltrations (gummy form) which ulcerate in a relatively very rapid way.

3. In the condition of ulcer, the cancer is an *ulcerated tumour*. Even in its gnawing and excavating form, there is still a base which points it out as a tumour, and of this the hardness, dryness, and elasticity show that the ulcer is formed on a morbid tissue which is destroyed. Tertiary syphilitic affections, on the other hand, are ulcers without true tumour. At the most they are ulcers with hard base, engorged and infiltrated; but the base does not give, or gives less than the cancer, the sensation of a tumour beneath the ulceration. It has not in any case the hardness of the cancer.

4. *Objective Symptoms of the Ulceration.*—The ulceration of the cancer is redder, and more fungous than that of tertiary ulcers; it bleeds more easily; secretes an ichorous sanies more diffuent, more foetid. It is often surrounded, and bordered by mammillary vegetations, like raspberries, or cauliflowers, &c.

5. *State of the Glands.*—At a certain time the cancer has an almost certain influence on the glands, which become hard, voluminous, and may even ulcerate, bud forth, and vegetate. With syphilitic affections there is no affection of the glands, at least, in the enormous majority of cases, and with the exception of inflammatory and strumous complications.

6. *Action of the Specific Treatment.*—Whilst the specific treatment remains without any action on the cancer, it is rapidly active in tertiary symptoms. It is then, here, as in so many other cases that I have spoken of, to specific treatment that we should have recourse when the least doubt subsists as to the nature of the lesion; it is this which it is urgent and imperative to consult as a diagnostic criterion to guard against those operations so eminently regrettable, of which several examples, I repeat, have been met with.

## In Memoriam.

ARTHUR JACOB is dead! The simple announcement of this fact must be sufficient to excite in the minds of the older members of our profession, and more especially so in the minds of those who knew him, many memories, and even by the younger members, who could only have known of him by his remarkable contributions to medical literature, the announcement will not be received un-

moved that the illustrious discoverer of the "Membrana Jacobi" is now no more. To attempt to describe the feelings of the proprietor of this journal, or of all those so long and so intimately associated with the late Dr. Jacob in its working, the writer of these few lines feels would but be to tread on sacred ground, a desecration from which he shrinks, preferring instead, by a brief notice of the life of an earnest, honest, and pre-eminently intellectual man, to stimulate, so far as his feeble pen will permit, those who come after him to "go and do likewise."

Born on the 13th June, 1790, at Knockfin, near Maryboro, in the Queen's County, Arthur Jacob seems to have had hereditary claims on our profession, for his father was John Jacob, for many years surgeon to the Queen's County Infirmary, who commanded a leading practice in the midland counties, and of whose energy and skill many stories are even still told; and his grandfather was Michael Jacob, a surgeon in very extensive practice in Ballinakill, in the same county. Dr. Jacob was the direct lineal descendant and senior representative of an old English family who resided in Kent in the 13th century, and subsequently held estates at Gamlingay, in Cambridgeshire, in the reign of Henry VIII. To one of this family, Sir John Jacob, of Bromley, in Middlesex, a baronetcy was granted by Charles II., in consideration of his great services to the cause of the martyred king, which title passed through five generations, when it became extinct by the death of Sir Clement Brydges Jacob, in the latter part of the last century. The third baronet of the name served as Colonel of Foot at the Boyne and Aughrim, and for military services about the same period a cousin of his received an extensive grant of land at Sigginstown, near Wexford, under the Act of Settlement in 1667, and became the founder of the Irish branch of the family of Jacob, the junior offshoot of which remained as colonists of the County of Wexford, and the senior established itself in the Queen's County, where it has held a high position for more than a century and a half. Of this, which happens by the extinction of the direct line of the Cambridgeshire family—to be the direct lineal descendants of the Kentish residents, Dr. Arthur Jacob was the senior representative.

Having received a sound preliminary education, he commenced at an early age the study of his profession under the personal supervision of his father, and after a few years so spent he proceeded to Dublin, carrying with him letters of introduction to Abraham Colles, then a leading surgeon attached to Steevens' Hospital, within the walls of which institution he served his time, and on the completion of his studies, graduated as M.D. in the University of Edinburgh in the year 1814. The energy of his character and the vigour of his constitution may be inferred from the fact that after his graduation in Edinburgh he started on foot through Scotland, Wales, and England, visiting the principal towns on his route, and closely inspecting their medical institutions; and it was in subsequent years a source of pride with him to be able to state that during the six weeks so occupied he traversed 960 miles. Arriving in London, he again started on foot, but this time directing his steps to Dover, whence he crossed over to Boulogne, and, again on foot, proceeded to Paris, where he spent some months, eagerly availing himself of the opportunities for improving himself afforded by the hospitals in that city. The news of the 1st March, 1815, however, startled him from the pursuit of his studies, as it did others from that of their pleasure. The great Napoleon had landed at Cannes on his return from Elba, and, in company with the other English visitors to Paris, Dr. Jacob started for London, this time, however, not making his journey on foot; and upon his arrival in that city spent some months attending the clinics of Sir Astley Cooper, then in the zenith of his fame, of Sir Benjamin Brodie, and of Sir William Lawrence, with all of whom he became intimately acquainted, and whose friendship he maintained to the periods of their death.

Upon his return to Dublin, Dr. Jacob quickly attracted the attention of Macartney, then Professor of Ana-



tomy in the University of Dublin, a man remarkable for the soundness of his knowledge and for the advanced character of his physiological teaching. He appointed him one of his demonstrators of anatomy, and for several years was he associated with him in establishing the character for high scientific culture of the Medical School of that University. Earnest and enthusiastic as Jacob had hitherto proved himself to be, during these years he excelled himself. With his own hands he contributed largely to the formation of that museum (especially to that portion of it illustrative of the absorbent system) which Macartney subsequently disposed of to the University of Cambridge, where it at present lies; whilst at the same time he made a series of exquisite anatomical preparations of the eye, both human and comparative, which, at a later period, he presented to the Royal College of Surgeons, of the Museum of which body it still constitutes a principal ornament. During the prosecution of these anatomical investigations he made that remarkable discovery which has rendered his name immortal, but which, with the true modesty of genius, he simply announced in a paper in the "Philosophical Transactions" for the year 1819 under the title of an "Account of a Membrane in the Eye recently discovered," which membrane, however, with the unanimous consent of all subsequent writers, has been called, after him, the "Membrana Jacobi."

Some few years after this, circumstances induced him to sever his connection with the University of Dublin, and he then, in conjunction with Graves, Marsh, Cusack, and Hart, founded the old Park Street School of Medicine and Surgery, for a long time one of the most successful private schools in Dublin, from which, in the year 1826, he was translated to the Professorship of Anatomy and Physiology in the School of the Royal College of Surgeons in Ireland, of which body he had been elected a member so early as 1816. Thenceforward his every thought was devoted to the College, and no amount of labour, no amount of self-sacrifice was deemed by him sufficient to ensure its advancement. At that time hospitals were fewer in number in Dublin, and more exclusive than they are at present; many of the Professors in the College School were unprovided with such appointments. To meet this condition of affairs, the bold idea crossed his mind of starting an hospital which should be officered by Professors in the College of Surgeons' School. Acting upon this idea, he associated with himself in the enterprise Professors Benson, Harrison, Apjohn, Beatty, and Houston; and in the year 1832 the City of Dublin Hospital came into existence, since which period it has grown into the position of one of the leading charities of the city. For several years he had been now taking an active and influential part in the medical politics of the country, and his spirit had been frequently chafed at what he, perhaps justly, conceived to be unfair comments in the English journals, and at the want of *esprit de corps*, and ignorance of current medical politics on the part of Irish medical men. To remedy these evils, he determined upon starting an organ for the expression of Irish medical opinion, and, in conjunction with Dr. Maunsell, in the year 1838, he brought out the first number of the DUBLIN MEDICAL PRESS. Of this paper for many years he was the sole proprietor and editor, and in its pages appeared many of his most important contributions to the literature of his profession. For years it was impossible for man to toil more laboriously or more conscientiously than did Dr. Jacob, nor have many men left richer fruits after them as the result of their labour than he did. His time, apparently, was fully occupied with the duties of his Professorship, in the discharge of which he was pre-eminently punctual and energetic, attracting large classes of students, whose boast in subsequent years it was that they had been his pupils. In editing his journal, in which, week after week, would appear leading articles from his pen—easily recognisable by the vigour and terseness of their style—in the large calls made upon his time by his extensive private practice, and in the discharge of his hospital duties, with which he would allow nothing to interfere, it could scarcely have been expected

of him to make many important contributions to the literature of his profession; and yet, in the midst of all his multifarious avocations, many such flowed from his pen, prominent amongst which, as being standard, may be mentioned his essay on the Cetacea, published in the *Dublin Philosophical Journal*; his papers on the Eye, in the *Cyclopædia of Anatomy*, on Ophthalmia and Amaurosis, in the *Cyclopædia of Practical Medicine*; on Diseases of the Eye, in the *Dublin Hospital Reports*, and in the pages of this journal; on the Anatomy of the Eye, in the *Medico-Chirurgical Transactions*; his essays on Anatomy, Zoology, and Miscellaneous Subjects, on Inflammations of the Eye-ball, on Cataract, together with many other papers, too numerous here to enumerate. His fame as an original thinker and investigator, which mainly rested upon his discovery of the "Membrana Jacobi," was sustained by his original description of the disease which long bore the name of Jacob's Ulcer, and is now more commonly known as the rodent ulcer, and by his restoration to surgery of the operation for the solution of cataract through the cornea by the curved needle, now known as Jacob's Needle. His work on "The Inflammation of the Eyeball," though presented to the public in a most unpretentious and uninviting form, has always been recognised by contemporary writers on ophthalmic surgery as one of the most sterling works on the subject in the English language. His distinction as a surgeon, anatomist, and writer was not, however, attained without the exercise of continued and persevering labour and self-sacrifice. For many years of his life it was his unvarying habit, after the completion of a laborious day's work, and having dined, to retire to bed for a couple of hours' rest, when he slept profoundly; he then got up, had tea, and devoted the greater part of the night to reading, writing, and preparing notes for his anatomical lectures. His retiring disposition and little regard for convivialities enabled him to devote almost all his midnight leisure to such labours, which were to him labours of love, and his perseverance in such a system bore good fruit in the many articles which flowed from his fertile and versatile pen.

To those who had but a superficial knowledge of Dr. Jacob, his manner may have appeared brusque, but to those who were intimately acquainted with him, the generous, disinterested, honest, and thoroughly independent nature of his character was well-known. Never could he be persuaded to do an act which savoured even in the remotest manner of selfishness, or of self-advancement. Thoroughly honest and disinterested, he never would accept of any testimonial from his professional brethren in recognition of the many sacrifices which he had made in their behalf. A remarkable illustration of this statement occurs to the writer's mind. About the year 1860 a number of his admirers determined, despite his well-known feelings on the subject, to present him with a mark of their appreciation of his services, and a committee was organised for the purpose of receiving subscriptions, which flowed in rapidly, and the time came round when it was necessary to ascertain the form which it would be most agreeable to his feelings that the testimonial should assume. Sternly and resolutely he declined to receive anything, and, in consequence, the committee were at their wits' end to know what to do with the subscribers' money, when a happy thought occurred to them that it should be spent in striking a medal in his honour, and they confidently calculated he would not refuse to receive one of these. The medal was struck, and a beautiful specimen of die-sinking it is, its execution having been confided to an eminent Irish artist, Mr. Woodhouse, that intended for Dr. Jacob being struck off in gold, whilst those for the subscribers were struck off in bronze. The committee waited on Dr. Jacob to request of his acceptance of the medal intended for him, when he replied: "I cannot accept of this or any other testimonial, but if at my death you still think that I deserve it, you may nail it on my coffin!" As stated, this medal is a beautiful example of the die-sinker's art. The obverse bears a life-like head and bust of Dr. Jacob, and on the reverse are found these



words: "Arthur Jacob, M.D., F.R.C.S.I., Prof. of Anat. and Phys. Roy. Coll. of Surgeons in Ireland. In commemoration of eminent services rendered to science and the medical profession in Ireland. 1860."

Full of honours, full of years, he at last, in the unimpaired vigour of his intellect, resolved on retiring from the services of that College which he had loved so well, and over which he had for so many years with unceasing devotion presided. Thrice nominally its President, for many years past had he been practically recognised as its chiefest counsellor—its brightest ornament, and in adopting this step, and in voluntarily separating himself from an institution in which he took so deep an interest, and from colleagues, most, if not all of whom, had been his own pupils, his heart must have felt a pang which nothing could assuage save the conviction that in thus retiring he was but acting in accordance with that spirit of loyalty to its interests which had actuated him throughout life. Doubtless he felt that the work which in former days had been but a labour of love was getting past his powers, and he desired to make room for younger, but certainly not for abler, men. Be this as it may, the love he bore the College, the interest he took in its welfare, abated not on his retirement, for one of the most recent acts of his life was to present to it his library and valuable collection of drawings. The College on their part have done him all the honour in their power. Thrice they elected him their President; a life-like portrait of him has been put up in their board-room; a special room has been allotted for the reception of his library, in which is placed his bust. But on honour in their power to bestow could be considered at all as equivalent to the lustre shed on their body by having had such a man as their Professor.

The career of Arthur Jacob, which we have thus briefly sketched, will have manifested to our readers the peculiar characteristics of the man. They were his unflagging energy, his unchangeable honesty of motive, and his almost faulty sense of personal modesty. His activity and perseverance—a well-marked inheritance from his father and grandfather—carried him over all obstacles, and brooked no opposition, and thus enabled him to overcome difficulties from the encounter of which a less energetic man would have shrunk. He devoted heart and soul to his public duties, he put behind him throughout his professional life all thought of self-interest, and, in flying from the suspicion of self-aggrandisement, he sacrificed many of those reasonable expectations of public and pecuniary advancement to which his labours and his talents justly entitled him. With him self-negation was an eccentricity, and though he at all times experienced just pride in the respect and affection so freely shown him by his professional brethren, and lived for little else than the enjoyment of their esteem, yet did he persistently discourage any recognition of his service which might obscure the disinterestedness of his motives. Such faults as he had may be truly said to have been the offspring of his constancy to his well-loved College and of his intolerance of disingenuousness, or what he considered professional trickery in others. The warmth of his views on these subjects cost him much personal profit, but gained for him, even amongst those who did not sympathise with such feelings, a thorough respect for his disinterestedness, and a deep admiration for his talents and perseverance. There have been few men in our profession respecting whose policy and acts there have been so many opinions. There has been none respecting the greatness of whose characteristics and the honesty of whose objects so perfect and honourable a unanimity of feeling now exists.

The plot of ground facing the new Thames Embankment, given to King's College through the First Commissioner of Works, is already covered with a handsome structure, which will be utilised for the physiological and microscopical departments of the College. The work is nearing completion, and is expected to be ready for the reception of students in a very short time.

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"SALUS POPULI SUPREMA LEX."

WEDNESDAY, SEPTEMBER 30, 1874.

### NÉLATON'S METHOD IN CHLOROFORM NARCOSIS.

THIS was the subject of two communications in the Surgical Section at the Norwich meeting. The method simply consists in inverting the body, and the results are described as most satisfactory. Nélaton believed that death resulted from anæmia of the brain, caused by the direct action of the chloroform. He sought to avert the catastrophe by the simple plan of inverting the patient.

Dr. Marion Sims related a case in which Nélaton was present, when, in the midst of Dr. Sims' operation, the chloroformist, Dr. Campbell, said, "Stop! stop! No pulse, no breathing!" and, looking to M. Nélaton, he said, "Tête en bas, n'est-ce pas?" Nélaton replied, "Certainly; there is nothing else to do." Immediately the body was inverted, the head hanging down, while the heels were raised high in the air by Dr. Johnston, the legs resting, one on each of his shoulders. Dr. Campbell supported the thorax. Mr. Herbert was sent to an adjoining room for a spoon, with the handle of which the jaws were held open, and I handed M. Nélaton a tenaculum, which he hooked into the tongue, and gave in charge to Mr. Herbert; while to Dr. Beylard was assigned the duty of making efforts at artificial respiration, by pressure alternately on the thorax and abdomen. M. Nélaton ordered and overlooked every movement, while I stood aloof and watched the proceedings with, of course, the most intense anxiety. They held the patient in this inverted position for a long time before there was any manifestation of returning life. Dr. Campbell, in his report, says it was fifteen minutes, and that it seemed an age. My notes of the case, written a few hours afterwards, make it twenty minutes. Be this as it may, the time was so long that I thought it useless to make any further efforts, and I said, "Gentlemen, she is certainly dead,

and you might as well let her alone." But the great and good Nélaton never lost hope, and by his quiet, cool, brave manner he seemed to infuse his spirit into his aids. At last there was a feeble inspiration, and after a long time another, and by-and-by another; and then the breathing became pretty regular, and Dr. Campbell said, "The pulse returns, thank God; she will soon be all right again." Dr. Beylard, who always sees the cheerful side of everything in life, was disposed to laugh at the fear I manifested for the safety of our patient. I must confess that never before or since have I felt such a grave responsibility. Again and again the same scene was enacted, and was graphically related by Dr. Sims, who related a second equally successful case.

Sir John Rose Cormack related, at the same meeting, a case in which the method had proved successful, although the patient remained for a much longer time in a precarious condition. In fact, his case was one in which the poisonous effects of the chloroform continued for a long time, as in those described by Casper and others.

Dr. Richardson, in consequence of Sir John Cormack's case, has lately performed an experiment, which he thus relates in a letter to Sir John:—

"A large strong rabbit was put to sleep with chloroform, and the administration was continued until the animal had ceased to breathe. Tracheotomy was immediately performed: a tube connected with the double acting bellows was inserted into the trachea, and artificial respiration was set up. At the same time, the animal was suspended by its hind legs, with the head downwards. The artificial respiration was steadily carried out, in the most systematic manner, for fifteen minutes, but there was no sign of restoration of the circulation. The animal being still suspended, I next laid open the thorax, and exposed the lungs and heart. The lungs were discovered to be responding perfectly to the action of the double bellows; but all parts of the heart were at rest, except the left auricle: this, charged with red arterial blood, was contracting; the other parts were so dead that they failed to respond to the intermittent galvanic current, although to the same current all the voluntary muscles responded vigorously, and continued to do so for an hour. I observed that the right cavities of the heart, the auricle, and ventricle, were tense with blood. I therefore let the animal down to the horizontal position; and when by this means the pressure of the blood was relieved, the auricle, and afterwards the ventricle, made a few feeble contractions under stimulation. No sufficient force was, however, exerted by the heart to make the blood traverse the pulmonic circuit; and, I may say, there was not at any time an indication of recovery.

"How far the effect of inverting the body was useful in the two cases you have named, it is difficult to say, because in both artificial respiration was employed, and this in itself is so remarkable a means of restoration, that the effects of it have to be seen to be realised. By artificial respiration, I have resuscitated an animal *seven minutes* after its respiration

had been stopped by the inhalation of chloroform; and there are cases in the human subject in which, after complete failure of the respiratory power from chloroform, artificial respiration has restored life, the body being retained in the horizontal position. It would be good practice, nevertheless, after the experience of the cases you have related, to add inversion or partial inversion of the body to the process of artificial respiration. The inversion should not be long sustained; if it be, the heart might be paralysed on its right side from the pressure of the blood, but it should be alternated by return to the horizontal line, the artificial breathing being zealously sustained during the whole time.

"In certain cases, where the right heart is demanding the stimulus of blood to enable it to contract with effect, the required supply of blood may thus be obtained from the veins below the heart, and the pulmonic circulation may be restored—a result, if it be instantly resorted to, that will almost of a certainty render artificial respiration successful in restoring life."

#### THE OPENING SESSION.

To-morrow is October the 1st, the opening day at the English Medical Schools, and no doubt many of our readers are anticipating the pleasure of hearing one of the introductory lectures, and of meeting there old friends. Such associations carry us back to student days, when life was fresh, and the claims and dignity of the medical life were expounded by the orators of those days as they will be to-morrow by their successors.

We shall not attempt to anticipate the advice that will be offered to students by those who have been selected to perform the great ceremony of the year, the more especially as we shall next week have to report the proceedings, or publish such portions of the addresses as may seem of special interest to our readers.

We have for several years past published *in extenso* the lecture at the London Hospital, and shall follow up our custom by printing that of Dr. Fenwick, to be delivered to-morrow at that hospital. This we shall, as usual, supplement by abstracts of or extracts from the other orations, and thus, as far as space will permit, enable readers at a distance to realise the event of the day.

In spite of some attempts to depreciate introductory lectures, and of the fact that at one large hospital they have now for several years been omitted, the custom still holds its ground, both in London and the provinces, as well as, though a little later in date, in Ireland and Scotland.

We are the more desirous that it should be continued, since of late years an interest in these productions has been evinced by the public, as seen in the fact that the daily papers now give some reports of the proceedings. This is well, inasmuch as questions relating to medical education and practice, as well as many points of professional importance, are so mixed up with social matters that it is more desirable for the public to be interested in them. Had our professional interests been understood, our social value fully appreciated, it is probable we should long since have been able to obtain legislation on numerous points that have hitherto been shelved. Let us, then, not

shrink from the publicity that has been directed to our profession in reference to education. Rather let us avail ourselves of it, and make our appeal for the reforms so much needed.

Not that we advocate that the day should no longer be regarded as one of supreme interest to the fresh men. They are entitled to, and will no doubt receive their full share of consideration. We need only hope that the good advice they will receive may be faithfully followed. Then the session of 1874-75 will indeed be one from which many a good and true follower of the Great Healer will date the commencement of a noble life-work.

There are, too, others who will perhaps take fresh courage. Older students will renew their vows as they come back to their work. Practitioners—and what are they, or should they be, but older students?—who come back for the 1st October to their *alma mater* will be welcomed, and most of them will meet their fellows. To some, indeed, this is the only day on which they have the chance of recalling old times and faces, and so correcting the memory as they learn anew what ravages time is making, for while many a face looks older, and many a form bears other marks of the years that have past, not a few will realise afresh the blanks that death has caused in the list that is always growing less.

These blanks form the saddest feature in the medical red-letter day, the only consolation being that which happily we constantly hear in our profession, that those called away have in their day fought a good fight.

In this may we follow them, as at the opening of a new session we once more take our places among the audience and listen to the exhortations appropriate to the occasion.

## Notes on Current Topics.

### Hospital Sunday in Dublin.

It will be recollected that the possibility and expediency of instituting an Hospital Sunday in Dublin has been under discussion for two or three years, the proposal having been originally started by the late Dr. Eames. Last year the movement took a practical shape, and meetings were held at which most of the hospitals were represented. The movement then received a severe blow from the refusal of the Roman Catholic hospitals to co-operate, yet it did not yield to that discouragement, but was still intended to be carried into effect at an early date. We regret to observe that some of the hospitals—notably the Meath—who had, in the first instance, joined the movement, have now fallen away from their adhesion to it, and their representatives have issued a manifesto against the proposition. Although we regret this action on their part, we cannot deny them the justice of making public the essential parts of this document.

"The advocates of the Hospital Sunday movement calculate the probability of success from experience gained in England, where the Hospital Sunday has been instituted with a certain amount of advantage that cannot be reasonably expected in Ireland, the condition of the two countries being so totally different. In England the entire population, without distinction of sect or creed, are united to

carry out the object; the people are generally wealthy, and the large Protestant majority especially so. In Ireland every condition is reversed. The large majority of the inhabitants of Dublin, 205,800, are Roman Catholics, of whom very few will contribute anything. And the immense majority of patients are also Roman Catholics. Numerous annual donations and subscriptions will be commuted for an annual contribution on Hospital Sunday; and that being distributed on some basis not yet fully defined, will leave those institutions that have hitherto been benefited by charity sermons and their own special collections, due to their own special exertions, comparatively destitute. But financially what is likely to be the result? London, the most wealthy and charitable city in the world, with nearly four million inhabitants, where Jew and Gentile, and all without exception, contribute to the Hospital Sunday Fund, only yields about 1½d. per head per annum, and this year's collection shows a diminution compared with the previous year. The 52,690 Protestants of Dublin would in the same ratio only afford £373; and even assuming that the Hospital Sunday collection should quadruple the ratio of London, it is evident that the ordinary subscription list being prejudicially affected, the gain must be nominal. The mode of distribution of funds thus collected, as proposed, is open to objection. The system is intended to be based on the amount of subscriptions received by each 'hospital,' and the 'work done' during the previous year. An average of years, both for subscriptions and work done, might be less objectionable. But here an important question arises—What is an hospital? And what is to be included in the terms 'work done?' In the Convalescent Home patients are interned for a fixed period of three weeks; in the Stewart Institute, for five years; and in the Hospital for Incurables, for life. Are these 'medical charities' within the scope of the Hospital Sunday movement, and how is the 'work done' 'relatively' to be measured? Is an hospital with large dispensaries—aural, dental, and ophthalmic—or simple dispensaries unconnected with hospitals, to rank with hospitals proper? How are they to be dealt with; and if dealt with, how is the work done to be ascertained? The matter of distribution is to be left to the discretion of 'persons disconnected with any hospital'; and it is therefore certain that charitable persons most acquainted with the working and needs of such institutions, and most likely to form a correct judgment, are precisely those whom it is proposed to exclude. If the whole community were to throw itself earnestly into the movement there would be a reasonable possibility of success, and the experience of other places would strengthen the hope of it; but with the charitable feelings and means of a Protestant minority, strained to maintain institutions which, besides scarcely providing for the poor of their own creed, afford relief to the numerous Roman Catholic poor, the movement will, in all probability, only disturb the present direction of charitable distribution, without adding materially to its volume."

### Dublin Sewage.

THE three engineers who were appointed by the Corporation, under pressure from the Government and the citizens, to frame a scheme for dealing with the Dublin sewage have reported. They had before them no less than fifty-seven different schemes, none of which were feasible. They have submitted a plan of their own, at a cost of about £160,000, and of £30,000 for a catchment reservoir, on Bateman's plan, at Ballysmutten, near Blessington, for flushing purposes. What they propose to do is to bring the sewage through intercepting sewers to two reservoirs on each side of the river far down, the sewage to be thence carried out to deep sea by the tide, which they say will effectually accomplish the intention. The cost of these works, though

not more than a fourth of that of the original scheme, will still be sufficient to raise a serious economic outcry, and really the citizens may be excused for an indisposition to incur great expense when it is remembered that the house taxes in Dublin amount to 9s. 2d. in the pound on the house valuation, or nearly one-half the rent.

We, of course, anticipate a violent opposition from the inhabitants of Clontarf and Ringsend, where the sewage reservoirs are to be situated, and probably a *veto* on the part of the Port and Docks Board, who will not allow their river-bed to be interfered with. Antagonism of this sort is, however, inevitable, and if the scheme be a good one we hope that such obstruction will not avail.

### Adipocere.

DURING the last few days the profession in London has had ample illustration of the process of conversion of muscle into that spermaceti-like substance known as adipocere, in the body of a woman which had been dredged from the Thames. After being embedded in the mud for probably two or three years, upon rapping the body it was hard, and perfectly resonant, and the whole of the internal organs were converted into a solid mass, which, like the rest of the body, when cut into, had the consistence and appearance of hard discoloured wax. One leg was absent, which Dr. Worboys was of opinion still remained embedded, the weight of mud having separated the parts when pulled up by the dredger. The head was resting upon the left hand, and the hypothesis is that the woman had laid down on the shore of the river at low water to sleep, or in a drunken state, and become suffocated.

### Scarlatina in Dublin.

FROM the Registrar-General's weekly return, which we publish elsewhere, it appears that the number of deaths registered in the Dublin Registration District for the week ending the 19th inst. amounted to 180, equal to a mortality of 30 per 1,000 of the population. Of these 62, or 34.4 per cent. were caused by zymotic diseases. Scarlatina proved very fatal during the week, the number of deaths from it amounting to 34, "exactly double the number registered during the previous week, and the greatest mortality from this disease in any week since the Registration Act came into operation in the year 1864." The total number of deaths from this disease registered during the current year amounts to 531, as against 233 registered during the entire of last year.

### The London Hospital Saturday Fund.

THE Secretary of this Fund writes to us as follows:—"As Hospital Saturday is now so close, I feel assured you will kindly accord to it the support of your invaluable journal, and with this view I respectfully ask that you will permit me to inform your readers that the Directors of the Crystal Palace, with the generosity and public spirit which characterise all their proceedings, have arranged a fête for the benefit of Hospital Saturday on the 5th of October next. The arrangements for this fête are of a magnificent nature. It will be only fair, therefore, to the Directors, that the public should evince their interest by being present in large numbers."

### The late Dr. Anstie.

A LARGE and influential meeting of the professional and private friends of the late Dr. Anstie was held last week in London, for the purpose of taking steps to raise a fund to be applied in perpetuation of Dr. Anstie's memory, and in recognition of his public and professional services. Dr. George Johnson presided, and among those present were Drs. Andrew Clark, Sibson, Murchison, Burdon Sanderson, W. Playfair, Liveing, Duffin, Douglas Powell, Wharton Hood, Sturges, and Glover, Messrs. Macmillan, J. S. Storr, T. H. Hills, John Wood, Henry Smith, Christopher Heath, Henry Power, Bond, Netten Radcliffe, Brudenell Carter, and many others. Dr. Burdon Sanderson proposed the following resolution, which was seconded by Dr. Glover—"That, considering the labours of the late Dr. Anstie for the promotion of science, and the circumstances of his untimely death, it is desirable that some permanent memorial of his career should be established." By subsequent resolution a large committee was appointed to carry out the objects of the meeting, and Mr. J. S. Storr was appointed treasurer, and Dr. Wharton Hood and Mr. Brudenell Carter joint secretaries. An executive committee was also nominated, and an opinion was expressed that the circumstances of Dr. Anstie's death in the discharge of his duty, as well as much of the work which he had done during life to ameliorate the condition of the poor, were sufficient to justify an appeal to the general public as well as to his own profession.

A meeting of the Council of the Westminster Hospital Medical School was also held, when the following sub-committee was appointed to collect subscriptions from the hospital and school in connection with the above fund:—Dr. Fincham, Dr. Gibb, Dr. Allchin, Mr. Cowell, Mr. Bond (honorary secretary), Dr. Dupré, with power to add to their number.

### The Latest about Cremation.

THE manner in which Sir Henry Thompson's famous proposal has been taken up in all civilised countries leaves little room to doubt, says the *American Clinic*, that cremation, as a means of disposing of the dead, will soon supersede inhumation. The German Cremation Society, in New York, numbering about 450 members, have decided on erecting a suitable hall, with walls of iron, 50 ft. by 44 ft., containing a rotunda supported by eight pillars. In the centre there will be erected an altar for religious ceremony, and upon a large stand in front of this will be placed the coffin. The ceremonies ended, the coffin would be gradually lowered by means of screws into a furnace, where it would be submitted to a hot-air blast of 1000 degrees Fahrenheit. It is calculated that complete cremation would take place in an hour and a half, after which the coffin would be again returned to the altar. The ashes would then be gathered and placed in urns provided by the relatives of the deceased. Connected with the furnace there will be an apparatus for condensing the gases and smoke.

By the will of the late Mr. Bryce Allan, of Liverpool, merchant, the Liverpool Northern Hospital receives £500, the Southern Hospital and the Liverpool Medical Museum £300 each, and the Liverpool Royal Infirmary £200.

### Elimination of Alcohol.

THE lamented death of Dr. Anstie gives additional interest to the result of his researches on this subject, published in the *Practitioner*.

Experiments were made by Dr. Anstie and Dr. Dupré, with the view of ascertaining as nearly as practicable whether alcohol to any appreciable extent escapes unchanged from the body of an animal which has ingested it. The animals chosen for experiment were dogs, which approach most nearly to man in their capacity for resisting the effects of alcohol. The experiments were performed by the aid of a Pettenkofer's chamber, in which the animal was confined, while a current of air passing through the box was condensed in water. By this means all its excretions could be obtained and analysed.

The result of a series of these most carefully conducted experiments, including one where the entire animal was subjected to a sort of "destructive distillation," proves conclusively that within certain limits alcohol ingested by an animal becomes totally metamorphosed within the system, the percentage eliminated as such being almost inappreciable. Dr. Anstie concludes that quite 600 grains of absolute alcohol can be disposed of daily within the organism of an adult male without any perceptible injurious effect upon the bodily functions.

If alcohol be a force-producing food, it is probably of great value in that capacity, on account of the rapidity with which its transformations take place.

It is certain, however, that beyond a certain dosage, varying for the individual, it becomes a violent narcotic poison, the more dangerous that it cannot be eliminated to any considerable extent.

If alcohol does not disappear by oxidation, it must undergo some as yet quite unknown transformation, after which it must escape unrecognised in the excretions.

If alcohol, however, be indeed oxidised, and yet does not beget force which can be used in the system, this would be the strangest possible discovery. Considering the very high theoretical force-value of the 600 to 800 grains of absolute alcohol which millions of sober persons are taking every day, we may well be hopeless of any reasonable answer to the question—Why does not this large development of wholly useless force within the body produce some violent symptoms of disturbance?

### Unpleasantly Suggestive.

FROM an address by the President of the Massachusetts Society for the Prevention of Cruelty to Animals we quote the following:—

"It is estimated that about six per cent. of cattle, and about nine per cent. of sheep and swine, nearly 600,000 in all, annually die on the passage to market from the west, and a large portion of these are sold in our markets, either as meat, or rendered into cooking lard; while the cattle that get through alive, for the want of food and water, and by reason of the cruelty inflicted upon them, after losing on the average, in transportation, nearly a hundred pounds each in weight, from the most juicy and nutritious parts of the meat, come out of the cars full of fever, and with many bruises, sores, and ulcers; and these, together with smaller animals, to which the loss and suffering is, in proportion, equally great, are all sold in our markets for food."

### Treatment of Zona by Collodion and Morphia.

DR. BOURDON (*Canada Lancet*), Hôpital la Charité, after having tried a great many local means for treating the above disease, and checking the intense pain, has definitively adopted the following plan:—Without opening the vesicles, he paints all the diseased surface with a combination of collodion and morphia—collodion one ounce, morphia eight grains. The mixture must be put on pretty thickly. The pain ceases from the second day, and at the end of seven or eight days, when the layer of collodion is removed, all the vesicles have disappeared and there remains only a slight local redness.

The *Practitioner* will, we understand, in future be edited by Dr. Brunton.

It is proposed to nominate Mr. Darwin for the Lord Rectorship of the University of St. Andrews.

THE Congress of German Naturalists was opened on the 18th inst. Professor Virchow was present.

SIGNOR PONTI, who bequeathed a portion of his property to the Academies of Science of London, Paris, and Vienna, died in a lunatic asylum, and his will will be disputed.

DR. BURGGRAEVE, Honorary Professor of the University of Ghent, has formed the idea of celebrating the centenary of the discovery of vaccination by publishing a folio volume, on vellum, illustrated with the portrait of Jenner.

DR. SAMUEL SOMERVILLE, Treasurer to the Royal College of Physicians of Edinburgh, has just died from aneurism. As a mark of respect for the memory of deceased, the President, Council, and Fellows of the College accompanied the corpse to its last resting place in official costume.

MR. W. BRANSBY FRANCIS, surgeon, of Norwich, has succumbed to the fearful injuries received in the Norwich railway accident. Deceased was forty-nine years of age, and his untimely death has caused a profound feeling of regret throughout the large circle of professional and lay friends by whom he was known.

THE guardians of the Preston Union have deemed it necessary to issue special instructions to their vaccination officer to inquire regarding the number of children born in the union who are unaccounted for in the vaccination returns. This number amounts to 226, out of a total of 1,980 births in the union during the latter half of 1873.

M. DECROIX, a chief veterinary surgeon of the French army, gives the equine population of Europe as follows: Russia, 1,800,000; Austria, 3,100,000; England, 2,666,000; Germany, 2,500,000; Turkey, 1,100,000; Spain, 650,000; Holland, 300,000; Belgium, 260,000; Switzerland, 110,000; and France, 3,633,600.

FROM the calendar of the Royal College of Surgeons of England for 1874, which has just appeared, during the year from Midsummer-day, 1873, to Midsummer-day, 1874, 365 candidates passed the preliminary examination in general knowledge for the fellowship and membership of the College; 683 were admitted to the primary examination in anatomy and physiology, of which number 441 passed. The M.R.C.S. was granted to 342, and that of F.R.C.S., to 11 candidates after undergoing the required examinations. The total income of the College from all sources in the year amounted to £13,093 ls. 3d. The disbursements over the same period were £12,672 14s. 5d.

It is contemplated to erect a memorial statue in honour of Ephraim McDowell, M.D., of Kentucky, who is considered in America to be the *founder of ovariectomy*. The appeal for aid to the project is first made to the women of the world who have been rescued by ovariectomy; next to the members of the medical profession, whose resources have been so greatly increased; lastly, to all who appreciate this advance in surgery, and its originator as worthy of the gratitude of the human race. All contributions to the memorial fund should be sent by money-order or registered letter, addressed to Dr. James M. Keller, No. 58 Green Street, Louisville, Ky., who has been appointed secretary and treasurer by the committee.

We referred last week to the attitude of the Dublin Corporation with reference to the new Public Health system, anticipating, not without good reason, an opposition to every part of the sanitary duties except that which had to do with a little personal patronage. We observe that the Corporation having applied to the Local Government Board to receive a deputation on the subject of the Public Health Bill, in which they desired to point out certain impracticable features, especially in regard to financial considerations which have not been provided for, the interview was not afforded, and yesterday it was determined, by a large majority, to request the Under-Secretary for Ireland, in the absence of the Lord Lieutenant and the Chief Secretary, to receive a deputation on the subject. On this subject *Saunders's News-letter* says that it will be interesting to witness the manoeuvres of the Corporation to obstruct the working of the Public Health Act. When the Bill was before Parliament we remember the fierce hostility expressed to it by certain members of the Town Council, because they were to have no voice in the appointment or removal of the sanitary officers. The whole thing apparently resolved itself, in their opinion, into a question of patronage—a point on which our municipal authorities have always shown themselves peculiarly sensitive. The Chief Secretary, however, judged with accuracy the position held by the Corporation in the public estimation, and their suggestions were firmly and decidedly rejected. Having failed to get any patronage under the Act, they now seem bent on showing that it is impracticable, in other words, obstructing the operation of the measure and rendering it a dead letter. This, we trust, they will not be permitted to do.

## INDIAN MEDICAL NOTES.—No. XXVI

(FROM OUR SPECIAL CORRESPONDENT.)

SIMLA, August, 1874.

## "THE BRIGHTON OF INDIA."

TOWERING above Simla is a mountain knot formed by four spurs, termed Jakho, 8,300 feet, well wooded, dotted with houses, the base constituting a favourite five-mile ride round, sometimes through dark shrubberies where the trees have their trunks covered with mosses and ferns, where endless flowers, the honeysuckle, pinks, cowslips, daisies, buttercups remind us of England; sometimes over yawning precipices overlooking crevices and crags, industriously cultivated by hard-working hill-men, who, for five months a year, are snowed up. On the summit of Jakho stood a blue house of slate, the residence of a Fakeer, the original settler in 1816. In 1819 was the first hut built, simply of thatch, spars, grass, and mud; and in 1822, Kennedy House and others sprang up.

Lords Anherst, Combermere, Bentinck, Auckland, Ellenborough, Hardinge, Dalhousie, Canning, Elgin, and Mayo lived here in their turn to escape the heat. Simla, 8,000 feet, has a range of temperature of 40° to 80°; Nyna Tal, 6,200 feet, 42° to 69°; Darjeeling, 7,000 feet, 40° to 64°; Ootacamund, 7,400 feet, from 51° to 60°.

The difficulty about the capital of India is to combine a central position accessible within reach of sea and rail, within ear of everything, plenty of space, and a cool healthy climate, the latter condition obtained at Simla. On the northern side, the snow accumulated in the winter protects vegetation, which, encouraged also by melted moisture, flourishes in the summer, and the trees grow hardy and luxuriant. On the southern side the rain torrents wash away the soil, leaving the surface barren and bare.

The municipality funds, about £1,000, obtained from ground-rents, are spent on roads, drains, forests, markets, bridges, &c. Sanitation is paid for by a five per cent. assessment on house property, about £1,300, supplemented by £1,000 from Government, the bazaar improvements alone costing £6,000, about eight sanitary inspectors being employed. Besides two churches are Roman Catholic and Baptist chapels, Bishop Cotton's School, Punjab Girls' School, Christian Orphanage, convent and private schools. The club, with chambers attached, will suit whist-players and medical officers with fair pay who like their luxuries. As said before, Harding's Hotel is very good, excepting the bed-rooms, which are too small—Lowry's Hotel, two native hotels, accommodate bachelors; and for married people there are boarding-houses, fairly reasonable and comfortable, judging from rumour and personal knowledge. A furnished house involves endless outlay. I write all this down to inform medical officers, married and single, the latter only admitted at Harding's. Bring two servants, good clothes, and, as said before, plenty of money; bring uniform, for, at the risk of a reprimand, I appeared at Dr. Beatson's funeral and the Commander-in-Chief's levée in plain clothes, not at all according to Cocker. The library is capital.

There are three Government, besides private dispensaries, where lithotomy and other operations are occasionally performed. There are two civil surgeons in the Indian Service, appointed for two years, receiving their regimental pay, besides competing for practice amongst families of civilians, merchants, tradesmen, native shopkeepers, who may live up the sides of the mountain or down the deep ravines—often dangerous in the dark to man and beast, or during the drenching rains. The Viceroy and Commander-in-Chief, when up at Simla, have their own doctors, who may compete for the very limited practice. It even fell to my lot to attend, or be called in consultation, to a labour complicated with cardiac disease, provoked by rarefied air—to a case of blighted ovum, for a time considered placenta prævia; to officers with pneumonia or hepatitis, to ladies with diarrhoea,



to children suffering from thrush, diarrhoea, tabes mesenterica, worms, bronchitis complicated with meningitis, all interesting, some very anxious cases, which may eventually be detailed. How many of us would give years to recall the past of neglected opportunities in student days—the irrevocable past: the endless difficulties, the awful—frightful at times, crushing responsibilities of practice, the joys and sorrows influenced by our skill or stupidity should be impressed on the lad who inclines to idleness in the hospital or dissecting-room; no matter how naturally dense he may be, the industrious, plodding pupil must eventually succeed. He may never become rich; as the doctor's wife said in "Bleak House": "We are not rich in the bank, but we have always prospered, and we have quite enough; I never walk out with my husband but I hear the people bless him; I never go into a house of any degree but I hear his praises or see them in grateful eyes; I never lie down at night but I know that in the course of that day he has alleviated pain and soothed some fellow-creature in the time of need; I know that from the beds of those who were past recovery thanks have often gone up in the last hour for his patient ministrations. Is not this to be rich?"

In the army, having a fixed income, medicines, hospitals, appliances, we have many advantages not enjoyed by the civilian, and our place in the profession should be high. There are other doctors at Simla, so-called paper men—for instance, Dr. Bryden's work is tremendous; his services must be invaluable in collecting, arranging, and putting into shape the medical statistics of the army in India. It gives one a headache to pore his Herculean labours; but the air of Simla and the lively roses about his hospitable house are probably conducive to health and longevity.

The chemists, two in number, charge exorbitantly for drugs, and have it all their own way as regards hours of closing.

The nurses are widows of soldiers, pensioners, or settlers—some very attentive in desperate sickness, with a certain Mother Gamp flavour about them all. In 1837, according to Miss Eden, sister of Lord Auckland, then Governor-General of India, when a lady eight months' pregnant died (undelivered) of cholera, the doctor had to put her into a coffin, an officer screw her down, and the boys of the band carry the body to the grave, in deference to caste. Bad milk started infantile thrush, rendered fatal by excess of calomel; ladies would faint at dinner-parties, be tormented by fleas, be chilled into bilious fevers going out card-playing at night, some sickened of solitary *ennui*, others provoked phthisis or pneumonia by excessive dancing.

The immediate delirium of fever was treated by leeches to the head and narcotine internally; but from a really severe jungle-fever, aggravated by bad water, no one recovered. During the heat at Simla people remained in-doors from seven in the morning to six in the evening; during the rains, houses, rocks, and roads were washed down; landslips occurred as they do to-day; also clothes, carpets, furniture, food, and drugs become damaged by the damp. An eccentric doctor, once sent for to a child in convulsions, refused to prescribe, pleading that the patient was possessed by the devil, then rambled into a lecture about magnetic stones, the North Pole, and Solomon's Temple. Miss Eden also tells us of a cataleptic native who insisted on being buried for two months, and then dug up again.

About 2,000 feet below the Mall is a level garden, called Annandale, celebrated for vegetables, flowers, fruits, and grand old cedars, the apple-trees this year satisfactorily productive—a tea-garden kind of place, adapted for races, cricket, pic-nics, flirtations where wavering bachelors come to the scratch and are referred to papa. "Show me your last pay certificate, young man," was the celebrated old Jock's reply on such occasions. Down in the valleys, winding through groves of firs, pines, and jungle, are the waterfalls, descending from a height of about 100, 80, and 40 feet respectively—just worth visiting,

but a hot, tedious pilgrimage, involving wet feet, and fever occasionally. Down in the valleys also are the three cemeteries, first opened in 1823, very English-looking, and fairly kept, the graves relieved by the birch and willow, the myrtle and the cypress, also the mournful yews, clover, the passion-flower, purple hollyhocks; also certain plants in pots were noticed this afternoon, for instance, hydrangeas, petunias, roses, and fuchsias, surrounding certain tombs. Several young married ladies rest here; but I could not find the celebrated memorial to so and so, third and beloved wife, &c. Some casualties were accidental—falls over the cliff, &c.; it is a great pity the cause of death is not invariably inscribed. Sir Robert Barker, Sir Alexander Laurence, Sir Henry Godwin, Dr. Tritton rest from their labours in the Simla cemetery—spoiled by Norwood, Kensal Green, and Highgate; somehow the place did not please as expected—an indefinable something wanting. The only epitaph worth transcribing was over an old general, and will apply to us all—"God be merciful to me, a sinner."

## Literature.

### THE PSYCHOLOGICAL AND MEDICO-LEGAL JOURNAL. (a)

THESE are the two first numbers of the new series of the *Transatlantic Psychological Journal*, which has changed its title to the *Psychological and Medico-Legal Journal*. It is very ably conducted, and will bear comparison with any European publication devoted to the same special class of topics with which we are acquainted. The first paper in the July number is by Dr. Hammond; its subject, "The Effects of Alcohol upon the Nervous System," is treated in a thoroughly philosophical manner, without the slightest evidence of any latent prejudice for or against the general use of alcohol. It is, in fact, a well-reasoned and dispassionate examination of a very important subject. The conclusions at which the author of the paper arrives are based upon three series of experimental observations under three different conditions, and they may be summarised thus:—

1st. *The influence of alcohol when the food consumed was just sufficient for the wants of the organism.*—During this series of experiments the food was of such a character and quantity as to maintain the weight of the body at its normal standard, and the author found that the use of half-an-ounce of alcohol at each meal had the effect of slightly increasing the weight of the body, and slightly diminishing the quantity of carbonic acid exhaled, as well as the quantity of the urine and its solid constituents. The general health, he found, was not so good as usual; there was headache, as well as indications of increased circulation, and sensations of undue heat and oppression. The inference he draws from this series of experiments is, that when the system is supplied with an abundance of food, and when there is no special circumstance existing to render the use of alcohol advisable, its employment as a beverage is not to be commended.

2nd Series. *The influence of alcohol when the food was not sufficient for the wants of the organism.*—The food taken in this series resulted in a loss of weight, amounting to about .28 of a pound daily. Under the use of alcohol (same quantity as before), not only was the loss overcome, but there was an average increase of .03 of a pound daily. The effects upon the excretions were similar to those in the first series, but the general health was good throughout, and mental and bodily vigour normal. The author therefore concludes that, when the quantity of food is not such as to admit of the due performance of such physical

(a) *The Psychological and Medico-Legal Journal*, July and August, 1874. Conducted by W. A. Hammond, M.D., and T. M. B. Cross, M.D. New York: Christern.

and mental labour as may be necessary, the use of alcohol is to be commended.

In the 3rd series of experiments, in which more food was taken than was necessary, the ill effects of alcohol were more marked than in the first. Headache was constantly present, the sleep disturbed, the pulse increased in frequency and force, and there was a general feeling of *malaise*. The body continued to increase in weight above the ratio which existed before the alcohol was taken, and the excretions were diminished in quantity. He comes to the general conclusion that alcohol must be regarded as an article of food, and that it retards the destructive metamorphosis of tissues.

He then proceeds to the consideration of alcohol in its poisonous effects upon animals and men, and concludes with a very able sketch of the nervous diseases produced by its abuse. The paper is a valuable contribution to the study of the physiological effects of alcohol.

In addition to this article the number contains a translation, by Dr. Lincoln, of Boston, of Professor Benedikt's paper on "The Laws of Topographical Diagnosis in Chronic Diseases of the Nervous System." The paper is a very able one, and presents an excellent synopsis of the laws of localisation of the symptoms and groups of symptoms in spinal and cerebral nervous affections.

The notices of contemporary literature are marked by extensive reading and considerable literary ability; in particular, the critical notice of Dr. Maudsley's recent volume upon "Responsibility in Mental Disease" is written with singular ability and good sense.

The number for August may be said to consist of two papers, the first from Dr. Hammond, upon "Morbid Impulse," the second from Dr. Cross, upon "The Treatment of Sciatica." Both are able contributions to the literature of the subjects with which they deal.

#### MATERIA MEDICA AND THERAPEUTICS. (a)

In the preface to the volume before us the author states that his work is a portion of a complete one on *Materia Medica* eventually to be published, and that the succeeding portion will contain the inorganic remedies, the alcohols, ethers, &c. If what we have received be a true index of that to follow—and of this we have no misgivings—a very effective work on *Materia Medica* will be the result, at once most useful to the student, to the practitioner, and not less to the truly scientific only.

We congratulate the author on the mode adopted by him in order to simplify the rather tangled skein on which he so industriously manipulated, removing what he considered to be superfluous threads, and finally placing before us the result of his labours, so far, in a neat volume, issued from the press in the publishers' usual style of effectiveness.

Under the natural orders Dr. Phillips describes all plants. In the first division of every article we have a botanical description of the plant, the second enumerates its active ingredients, the third the physiological effects of the drug, the fourth its therapeutic action, and the fifth and sixth its different preparations, doses, and adulterations. Such being the basis of the work, the author culls from the subject on which he treats all matter that appears to him superfluous or lacking practical use and application, and accomplishes his task in a very creditable manner, ending it by giving us a double index, on reference to which any subject or remedy dealt with may be at once turned to—saving both the time and trouble of the reader. We append a specimen of the mode which the author has adopted, selecting for obvious reasons one of the shortest descriptions in the volume:—

"RHAMNACEÆ—the Buckthorn Family.

"An order of about 250 exogenous trees and shrubs with simple undivided and usually alternate leaves, and

*Materia Medica and Therapeutics (Vegetable Kingdom).* By Chas. D. F. Phillips, M.D., F.R.C.S. London: J. and A. Churchill, 1874.

small and usually greenish flowers, the parts of which are in fours or fives. The perigynous stamens are opposite the petals, and the superior and two to four celled ovary is seated upon a fleshy disk. The fruit is either fleshy or dry. The order abounds with plants possessed of active properties, the most noted of them belonging to the typical genus *Rhamnus*."

"PURGING BUCKTHORN (*Rhamnus catharticus*).

"1. *Description*.—A spinous shrub, six to ten feet high, common in English hedges, with ovate, glabrous, and serrated leaves, and abundance of minute tetramerous flowers, followed by small globular black berries. The seeds, four in number, are smooth, elliptical, and plano-convex.

"2. *Active Ingredients*.—The purgative properties of buckthorn are probably due for the most part to an uncrystallizable bitter substance called *Rhamnocathartine*, the descriptions of which are somewhat vague. It has been questioned whether this principle may not be identical with *Rhamnine*, another ingredient of buckthorn berries, but the latter is almost, or quite tasteless, and can be shown by the microscope to present a regular crystalline structure. *Rhamnocathartine* must not be confounded with cathartic acid,  $C^{18}H^{19}N_2O^{12}$ , the active principle of senna, and found also in the bark of the *Rhamnus Frangula*. *Rhamnocathartine* seems to be a sure purgative in two or three grain doses for children, but is exceedingly disagreeable to take, and is slow in action.

"3. *Physiological Action*.—The juice of the berries causes great dryness of the mouth and throat, with intolerable thirst, nausea, in certain cases vomiting, griping pains that extend throughout the abdomen, and violent purging, the character of the evacuations being watery.

"4. *Therapeutic Action*.—The juice spoken of was at one time prescribed in dropsy, also in gout and rheumatism, but now is seldom employed, except in domestic practice, which regards it as a laxative, suitable especially to children in the form of syrup.

"5. *Preparations and Dose*.—Syrupus: Dose  $\frac{1}{2}$  to 1 oz.; for young children  $\frac{1}{2}$  drachm; to 2 drachms.

"6. *Adulterations*.—The berries of the *Rhamnus Frangula*, which contain only two seeds instead of four."

#### DEATH OF DR. ROE, L.R.C.S.I., &c., OF BRIDGENORTH.

WE regret to have to announce the melancholy news of the death of Dr. Roe, which occurred on the 17th September at his residence, Bridgenorth, Salop. Dr. Roe was educated in Dublin, where he passed the Royal College of Surgeons in 1863; deceased settled in Bridgenorth, Salop, where he gained in a short time the respect and esteem of all who knew him, and where he acquired a very extensive and lucrative practice; he was one of the consulting surgeons to the Bridgenorth Infirmary, which institution has by his death sustained a heavy loss. He contracted in the course of his professional duties scarlatina, which was rapidly followed by renal and cardiac complications, together with inflammation of the lungs, and he died in his arm chair leaving a sorrowing widow and several orphans behind. We regret to learn that one of the children has died, and others are ill of scarlatina.

IN another column we have recorded the case of an American girl, who died recently from eating clay. We have now to add another victim to extraordinary taste in the person of a shoemaker, on whose body an inquest was held on Saturday, at Manchester. The post-mortem showed that the stomach contained one pound ten ounces of nails, several pieces of half-inch square iron, and an awl without a handle. The jury returned a verdict of death from peritonitis, in accordance with the medical evidence.

## Correspondence.

### DR. WEST AND THE BRITISH MEDICAL ASSOCIATION.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—Illness and consequent absence from town have prevented my seeing in print till to-day the resolution of the Committee of Council of the British Medical Association, forwarded to you by the solicitor of that body for insertion in your journal of the 2nd inst.

It may have appeared to others, as it did to me, that the publication of my letter, on which that resolution was based (if its purport had been what the resolution assumed), would have been a more satisfactory answer to my charge than any threat of legal proceedings.

My letter was in the first instance stated to have been destroyed. When that statement was withdrawn I challenged its production.

No reference having been made to it in the letter which accompanied the resolution of the Committee forwarded to me, I supposed it could not have been laid before them. On receiving an assurance to the contrary, I addressed to the Secretary a letter, of which I herewith enclose a copy. To that I have received no reply, and can merely repeat my dissent from the decision of judges who withhold the evidence on which that decision professes to rest.

Your obedient servant,

CHARLES WEST.

61 Wimpole Street, London, W.,  
Sept. 22, 1874.

[COPY.]

August 30, 1874.

SIR,—I have received your letter (with delay, owing to my absence from home), stating that the letter which I mention as having been referred to by the Editor was placed before the Committee, and read at their meeting.

This letter was stated to me, by Dr. Sibson, on the authority of the Editor, to have been destroyed. I therefore concluded that it could not have been placed before the Committee. I also had torn up the letter in which the Editor applied for permission to print my oration, but sought for and joined the fragments, and sent them to Dr. Sibson.

A like courtesy ought to have been extended to me, so far as to send me a copy of my reply, in which, as I assert, I distinctly refused the permission, and repudiated having ever made any such engagement as the Editor most incorrectly alleged that I had entered into.

The question of right or wrong, good faith or its opposite, turns entirely on the question whether I did or did not give the authority pretended. I deny it, and there, as far as I am concerned, the matter rests, and my opinion continues unaltered.

I am, Sir, your obedient servant,

CHARLES WEST.

F. Fowke, Esq., Secretary,  
British Medical Association.

### THE RELATIONS OF THE PROFESSION TOWARDS HOMŒOPATHY.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—As you have had the courtesy to insert my letter with my proofs, I am content to let your readers judge between you and me whether I have been guilty of "gross misrepresentation" in saying that the majority of the profession treat us as dishonest and immoral because we prescribe medicines on the homœopathic principle, and whether you are justified in asserting that "the medical profession regards with the most perfect toleration the theory and practice of *similia similibus*."

But if you will kindly continue your courtesy—or perhaps I should say your toleration—I would like to make a few remarks on a passage in your comments in my letter. You say, "Homœopaths are not admitted to association with the profession, &c., because it is impossible for intelligent minds to place

any charitable construction on the practice of infinitesimalism, or, in fact, to believe that it is anything but a fraud. Homœopaths may, if they like, be visionaries; but they must establish their claim to be considered to act with honest intention before they can be met as fellows by scientific medical men."

I have no desire to dispute your claim to a monopoly by your side of "intelligent minds;" but I would submit that whether so-called infinitesimal doses of medicines act or do not act under certain circumstances is a matter to be determined by experiment, and not by "charitable construction." Scientific belief is conviction obtained by evidence, and a belief based on any other foundation may be held tenaciously enough, but has no claim to be considered scientific. So, if your side assert that they believe infinitesimalism to be a fraud, we ask, where is your evidence to constitute your belief scientific? What if it should turn out that you have no evidence one way or other in connection with infinitesimal doses of medicine? What, in that case, is the value of your belief? Belief without evidence is merely prejudice. Your side object, perhaps, that you have had immense experience of the action of medicines. Granted; but not with infinitesimal doses. Your 200 years' experience of the emetic effect of a scruple of ipecacuanha will not enable you to tell how an infinitesimal dose of that drug will act in a case of vomiting.

Again, why are we to "establish our claim to be considered to act with honest intention?" In other departments of science is it considered necessary that their cultivators should give proof of honest intention? And, if not, why in therapeutics? Can an alleged fact in therapeutics not be considered on its own merits without proof of honest intention on the part of its propounder? Some time ago you did me the honour to notice favourably a pamphlet I published on the "Mechanism of Visual Accommodation." You considered my statements and experiments on their merits, and did not ask me for proof of honest intention. Why, then, should I be asked for such proof in reference to the action of infinitesimals in disease? Do therapeutic facts belong to the domain of morals, that they cannot be accepted, or even inquired into, without an assurance of honest intention on the part of those who put them forward? And will a therapeutic fact be accepted as true if the honest intention of its propagator is proved? If so, by all means let us furnish proof of the honesty of our intentions. But how is that to be done? Must we get a certificate signed by the clergyman of our parish, or a magistrate of our borough, to the effect that we are honestly-intentioned people? or will a testimonial from two reputable householders do? And are "scientific medical men" to ask for certificates of honesty all round before they will enter into fellowship with one another? You know that to ask for proof of honest intentions in regard to other matters for scientific experiment would be looked upon as an intentional insult, and we cannot help feeling that your side intend it as an insult to us.

Do you suppose the public believe you when you denounce us as dishonest, fraudulent, and "unworthy to be regarded as members of an honourable profession?" Of course, you know well they do not; but there is little doubt that the loss of consideration of the medical profession generally in the eyes of the public is in a great measure caused by the habit your side has so long indulged in of denouncing as dishonest and disreputable some of your colleagues for no other obvious reason than that they differ from you on some points of therapeutic doctrine and practice. This habit of knowingly bearing false witness against your brethren (for you know it is false to assert that our average morality and honesty are inferior to your own) cannot be indulged in without lowering the moral tone of those who practise it, and the whole profession suffers from this plan of making a question of therapeutics one of ethics, and assuming that a given method of practice is fraudulent in place of experimentally testing its value.

Your obedient servant,

R. E. DUDGEON, M.D.

53 Montagu Square, 10th September, 1874.

[We regret that the defence of the profession against the charge of trades-unionism which we are obliged to make, and the phrases which we are obliged to use, should appear insulting to homœopaths. We have no desire unnecessarily to hurt their feelings, and if we could express the same sense in more pleasant terms we would gladly do so. Our correspondent

asks us, "If we believe infinitesimalism to be a fraud, where is our evidence to constitute our belief scientific?" and he states that "belief without evidence is mere prejudice."

We have to remind our correspondent that the credibility of any statement and the propriety of close scientific investigation into the truth of such statement are matters of degree. No one in these days would consider it necessary to undertake an investigation into the existence of the philosopher's stone, which was said to turn all base metals into gold, nor would anyone be justly charged with unreasoning prejudice because, without inquiry, he denounced such pretensions as false. On the contrary, the man would be considered either mad, or a knave, who expressed in such properties a belief based upon the fact that their falsity had not been inquired into and proved. Whatever our correspondent may think, we cannot place infinitesimalism in any other category than that of the philosopher's stone, and we feel ourselves unable either to credit its professors with intelligent belief in it or to consider a scientific investigation a necessary preliminary to our declaration that it is a fraud.

The fact is, that infinitesimalism has become too much for the homœopaths themselves, and each successive exponent of Hahnemann's theories, even Dr. Dudgeon himself, manifests that he is ashamed of that part of his rule of faith by alluring over the subject. It would be honest in them to say plainly that they still held only a mitigated belief in billionths. Aye! but what about the patients who would not receive the ministrations of homœopathy at all? but that they think they are being cured by semi-invisible agencies!—Ed. M. P. & C.]

#### BATHING QUARTERS ON THE STRAITS OF DOVER.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—We are often consulted by patients as to the best sea-side residence during the summer months, and I confess to have sometimes hesitated in giving any oracular response to such queries.

This summer, however, I have, I think, almost made up my mind in pronouncing the little town where I am at present writing these few lines as the most healthful spot of easy access to our citizens of London. The opinion that Folkestone is the *ne plus ultra* of health and purity has grown on me for the last fifteen years or more, as I have during that time had yearly occasion to pass through the town on my way to Paris or other continental resorts, and resided in it on several occasions. I know that other places have far greater attractions for the citizens of London—thus, I have often taken the dictum of Mr. Erasmus Wilson as true, and said to patients, when complaining of languor, "Go to Margate." The air of Margate is, I acknowledge, very bracing, and the pier at present existing is a most desirable place for obtaining ozonised air.

Ramsgate, too, has numerous advantages as a bathing place, as the famous "Ramsgate Sands" of Frith have made known to the eyes as well as the ears of us all. Both of these localities, too, have some pastimes in the shape of concerts, assembly-rooms, and other pleasures so eagerly sought after by the young. Still, to the eye of the severe lover of health, there is too much of the town element in both of those very favourite resorts of our London population to make either Ramsgate or Margate quite without reproach.

On the other hand, this, the birthplace of the immortal Harvey, is quite unparalleled in the purity of its air, whilst it is free from the pernicious element of town life I have referred to. Folkestone, as will be seen by the registrar-general's reports, is quite on a par with the healthiest rural parishes in England in respect to its low death-rate (only 16 per 1,000); and a good observer can readily perceive to what this immunity from epidemics is due. In the first place, the little town is, with some slight exceptions, exquisitely clean, one of the cleanest towns in England, and that is great praise, for, after continental cities, it is quite a pleasure to return to this country for its cleanliness alone.

There seems also to be no great collection of a very poor dirty class as there is in Boulogne, or most other towns where fishermen and their families abound; the beach, too, is shingly, which makes the sea-water pure and clear, and this pure water washes out the harbour and takes away all those bad odours which make Boulogne-sur-Mer so unbearable to persons well organised in their nasal mucous membranes.

The authorities of Folkestone have of late years evidently been desirous of improving their little town, and I fancy I trace the effects of trips to Boulogne—which doubtless some of the members of the Town Council have often made—in the erection of a bathing establishment after the model of the splendid Etablissement des Bains, at Boulogne, as well as the furnishing of that agreeable accompaniment of the bath—a band, which plays for two hours in the morning and two in the evening, and thus keeps the visitors out of doors.

There are only two points in the hygiene of Folkestone which appear to me to require much alteration: the first is the water-supply. I am convinced that there must be some organic matter in the water supplied to the town, as it certainly is so unpleasant to the taste that I, although a votary of water as the best of all summer drinks, could not use it except in tea. The next point relates to the opening of a sewer into the town end of the harbour: this ought to be seen to at once, by conveying the said drain beneath the railway into the sea at low water.

By the way, a word about sea-bathing. Why is it that in England almost the only hours of the day chosen for bathing are between 10 a.m. and 1 p.m., whilst at Boulogne I find the bathing-machines in requisition from early morning until nightfall. I think there is an idea among most physicians here that bathing before breakfast is not healthful, and I confess to sharing this view in the case of very fragile patients, who, I think, ought not to enter the sea until they have repaired their expended nutrition by a good breakfast, and allowed an hour or two for digestion of the same; but in the case of robust men and women I see no harm, but rather good, in the sea-bath, taken with a short walk before and after it, previous to breakfast, and this is the custom I prefer in my own person. There is something, I think, very invigorating and poetical in rising at an early hour on a bright summer morning and spending half-an-hour amidst the sparkling waves. The morning meal is then better assimilated than it would be if the bather lay in bed until breakfast-time. This year my sea-baths have rid me speedily of an uncomfortable rheumatic pain in my left shoulder, which has resisted all mere pharmaceutical remedies whilst in London.

Folkestone, I hear, has only some 10,000 inhabitants, and the most recently built portion of the town, called the *Lees*, is well laid out, and admirably clean and bracing, being situated on the top of cliffs from which, on a very clear day, and with a good glass, I am informed that the column of Napoleon at Boulogne, thirty miles distant, is visible. I doubt it.

The bathing establishment affords to the subscriber an excellent swimming-bath, a ball-room, and reading-room, and the establishment owns some fifty bathing-machines, which descend the steep shingle-beach by gravitation alone, and are hauled up as the tide flows by a windlass; so steep is the incline sometimes that the bather is at once in deep water, which is a little hazardous occasionally when the sea is high.

Boulogne, which I passed through some days ago, and where I have often passed some time, is certainly a most attractive sea-side residence on a pleasant summer day. Few towns have such a combination of distractions for the visitor from Paris or London as Boulogne. *Imprimis*, the Etablissement des Bains is quite a palace, and has, every evening during its season, balls for the young people, and concerts for all, as well as excellent reading-rooms, swimming-baths, &c. There is also a wonderful little theatre in that city of 49,000 inhabitants, which creditably perform some of the grand operas, such as Robert, or William Tell, &c., a feat I should think quite unattainable in small towns in our rather unartistic islands.

Boulogne sands, with the 200 bathing-machines, or thereabouts, present quite a brilliant spectacle at the end of July or in August. It is, indeed, for this reason, I suppose, that so many of our countrymen and women so often forsake the charms of English sea-side resorts and crowd into Boulogne, which, as I am about to explain, has many serious drawbacks for the invalid.

The errors I allude to consist of—firstly, the way in which the bed of the river Liane lies uncovered by water for some

time, twice every twenty-four hours, at low tide, sending forth noxious exhalations, which must be smelt in every room in every hotel along the quays. The only way, I think, of getting rid of this great blot upon Boulogne as a health resort would be to have large sluice-gates as far down the river as on a level with the point where the Folkestone steamers lie, which should only be opened at that time of the tide which would suffice to keep the whole of that part of the river facing the quays constantly covered with several feet of water. Until this be accomplished I am sure that Boulogne-sur-Mer, with all its many advantages, natural and artistic, will continue to be sharply visited by epidemics of diarrhoea, low fever, and the like.

My respected former colleague of the Metropolitan Free Hospital, Dr. Chator, has settled as practising physician in Boulogne in the Rue de Vieillards, after having served his adopted country, France, in that detestable struggle, the Franco-Prussian war, by working in the ambulances with his devoted partner, a French lady. He has, on this account, been admitted to practise medicine in France with his English degrees.

Dr. Chator, should he see this letter, will perhaps inform me whether the inhabitants of the lower parts of Boulogne, near the river, do not suffer from diarrhoea and low dynamic diseases more than they ought to do; also, perhaps, he may tell us how it is that Boulogne is provided, or rather left unprovided, with sufficient drainage. The English quarter alone is, in my idea, decently drained, that is, the quarter lying to the west of the Haute Ville. The streets in that part are quite healthy, and persons residing there suffer from none of the evils I hint at, so that residents who secure houses in that part of the town are fortunate in living in such a pleasant town as Boulogne-sur-Mer.

One feature in Boulogne is peculiarly agreeable to the medical mind, i.e., the fact that a statue has been erected there to the immortal Edward Jenner. It was placed in the present situation on the quays whilst a certain M. Livois was Maire, who, I think, was a physician. Perhaps there may be a statue of Jenner in London, but I certainly do not remember to have seen it. Do you, Mr. Editor?

And, talking of memorials to the real benefactors of mankind—those who strive to ward off death and pain—I was, a Sunday or two back, in the parish church at Folkestone during service, attracted by the desire of seeing the memorial window lately erected to Harvey, which is, I admit, rather a compliment to science.

Yet the discourse I listened to from the speaker was such as to make me fear that the genius of many Harveys will be needed to awaken some men to a true reverence for Nature and truth. Imagine my amazement to hear that certain young persons, spoken of by the clergyman, had been suddenly restored to health whilst in some critical fever by holding a cross in their hands and being prayed for by a certain portion of that Folkestone congregation. "Shades of Harvey," I mentally exclaimed, "how long will such heterodox opinions reign over men? How long will 'peculiar people' in and out of our churches and cathedrals continue to exhibit the ignorance of the dark ages, and the superstition of the 15th century?"

What a strange contrast, by the way, there exists between the customs of the two towns I have just spoken of, separated by a narrow strip of sea of thirty miles long, with respect to the keeping of Sunday. In Folkestone, on Sunday, tranquillity reigns supreme; there no bathing-machine is allowed to descend into the sea; every shop is closed, and those persons who indulge in the superfluous practice of smoking, or partake of alcoholic beverages, must indeed feel in difficulties in procuring them on a Sunday. In Boulogne amusements of all kinds are at their acme on Sunday, and such notions as regulating the sale of stimulants on that day seem not as yet to have caused any of the numerous ministerial crises which abound in France. Both nations have, I am sure, much to learn from each other in this matter. Our Sundays are so severe that the working-classes are forced into drinking and sullenness from deprivation of a little innocent amusement on their only holiday; whilst, on the other hand, Sunday in France is no holiday at all to many classes, a far worse evil than ours.

Another feature of "La Belle France" strikes one even in Boulogne, and that is, the growing distaste among all the respectable classes in that country for large families. On one occasion I was in a *hôtel garni* in Boulogne, in company with two young married couples, both of whom had been, I found,

married for some five years. On inquiry, I discovered that both of these couples were postponing the date of their family until their salaries became higher—quite a French idea, I thought. This year I overheard a conversation between a child of five years of age, who complained that there was no baby in the house to play with, and his mamma, who told him that a baby was too expensive, and "eat too many cakes."

I presume it is on account of all this determination to live within their means that the French owe their comparative affluence; for I agree with Lord Derby in thinking that France is the wealthiest nation in Europe, if her income be divided by her population. Let others vaunt the enterprise of Germany and Holland, and the zeal of these and other nations in pushing out into foreign countries; I shall always think that France is the only country which yet has even begun to face the question of poverty with any hope of combating it effectively.

In Paris lectures are all over by this time. Dr. Alfred Fournier has been lecturing every Thursday at the Lourcine on tertiary syphilis; and I have had the pleasure of translating, as you know, some of these classical lectures. My friend Dr. Charles Mauriac has also had clinical lectures on Saturdays at the Hôpital du Midi.

There seem to have been quite a number of lady-students at the Ecole de Médecine and the various hospitals connected with it last winter. Among the lady-students enrolled at la Faculté are Miss Alice Vickery, a lady who passed with much distinction the examination for chemist and druggist at the Pharmaceutical Society of Great Britain, and Mrs. Kingsford, a distinguished literary lady who, some years ago, edited a paper devoted to the interests of women. It seems that these ladies were granted admission as *étudiantes* on presentation of the certificate in Arts of the Apothecaries' Hall of London, which was taken as equivalent in their case to the Baccalaureats-ès-lettres and ès Sciences. They had to pay the fees, however, for these Baccalaureats.

On the question of women-doctors, I agree with Voltaire when he says, "Women are capable of all that we do: the only difference between them and us is that they are more amiable." I think Voltaire in this was far nearer the truth than Sir W. Gull or Dr. Maudsley, and am glad to see the great French writer in agreement with Mill and the lights of this 19th century.

Many of the lady-students at the Faculté and at the hospitals are M.D.'s of some university in the United States, that *Paradise of women*, as some call it, where more than 500 women, I hear, are already licensed to treat their fellow subjects. One of these ladies, Dr. A. Fulton, informed me lately that she was admitted freely to all the operations in the various hospitals, and treated quite fraternally by the *Mlle* of the Ecole de Médecine. Now that Mr. George Critchett, Mr. Erichsen, Dr. Wilks, and other of the ablest men of London are taking the part of female medical education, I suppose that ere long many of our own women will be allowed to compete for an honourable livelihood in England with ladies from Russia, France, Switzerland, and the United States. Qu'en pensez-vous?

There are two other sea-bathing places on the Straits of Dover which I need say but few words about—Calais and Dover.

No one, I presume, would by choice reside for long in either of these towns. Calais is one of the most miserable towns I know, and I never pass through it without longing to throw down its ugly walls and let in fresh air and sunshine into its poor, filthy, narrow streets.

Dover, again, has but one great attraction, its pier; but, otherwise, I certainly cannot think that it can be spoken of as a thoroughly healthy residence for an invalid. The town is at the bottom of steep cliffs, and, except by the sea, is nearly inaccessible to the fresh breezes. It is greatly composed, too, of shops and taverns for the sale of spirituous liquors to the numerous vessels which enter the harbour of refuge.

I returned, therefore, to Folkestone, as the true health-resort of the Straits of Dover, and cannot help thinking that invalids and over-worked citizens of London or other large cities would find here all that a sea-bathing place ought to offer—pure air, pure sea-water, music, tranquillity, and comfort.

I remain, Sir, yours, &c.,  
HYGIENE.

Folkestone, August, 1874.

## Medical News.

**Apothecaries' Hall of London.**—The following gentlemen passed their examination in the Science and Practice of Medicine on the 24th inst., and received certificates to practise:—Messrs. John Duncombe Bell, Antigua, West Indies, of St. Bartholomew's Hospital; Thomas Gallimore, of the Manchester School of Medicine; William Doidge Haslam, M.R.C.S.E., of University College, London; Alfred Steward, L.R.C.P. Edin., M.R.C.S.E., of the School of Medicine, Manchester; and John Binns Southam, M.R.C.S.E., of the School of Medicine, Manchester. On the same day, John Hague Clegg, student of St. Bartholomew's Hospital; Edward George Dutton, student of Guy's Hospital; and Alexander Thomas Scott, student of the Middlesex Hospital, passed their primary professional examination.

**Removal of Lunatics.**—The relieving officers for the parish of Shoreditch have called the attention of the guardians of the poor to the want of room in the asylums for lunatics in the London district. The relieving officers are liable to a penalty of £10 when a lunatic is kept longer than ten days in the workhouse, and when patients are sent to asylums at a distance, such as Fisherton House, near Salisbury, the relatives of the lunatics complain of their being sent to such a distance, as it precluded their visiting them. Mr. Charles Stevens, the Chairman of the Board of Guardians, thereupon moved, and it was unanimously resolved—"That, in the opinion of the Board, it is absurd, extravagant, and cruel to send these lunatics so far away as Salisbury." Mr. Parker, the clerk to the guardians, was instructed to forward a copy of this resolution to the Commissioners in Lunacy, and at the meeting of the guardians held last week an answer was received from the Commissioners in Lunacy acknowledging the receipt of the letter and the extract from the minutes of the guardians, and stating—"The Commissioners of Lunacy fully concur in the view taken by the guardians of the hardship of removing insane paupers to a distance from their relatives, and one of their number especially alluded to the subject in his report of a visit made to the Shoreditch Workhouse December, in 1870; but the county authorities having failed to make proper provision, it does not appear that any other course is open than that of sending urgent cases to the newest establishment at which they can be received."

**Diseased Fish.**—At a meeting of the Court of Common Council, at Guildhall, on Thursday last, a discussion arose respecting a combination alleged to exist among the fish salesmen to prevent a certain portion of fish coming to the London market until it is stale and useless. In the course of this discussion it was mentioned that during the last month the Fishmongers' Company had seized and destroyed at Billingsgate Market no less than 120 tons of fish as unfit for human food—a quantity sufficient to supply the whole of London for an entire week. When it is remembered that, besides the 120 tons of fish, countless other tons of all kinds of food really "unfit for human consumption" have probably found their way down the throats of the public during the period referred to, it will be seen at once that our powers of digestion are, like our supplies of unwholesome food, practically illimitable. Diseased meat, stale fish, and rotten fruit would not be offered for sale if they did not find a ready market, and it is the readiness of people to devour garbage that encourages the caterers for the public to keep up a constant supply of articles of this description. In food for the mind there is also to be observed the same absence of fastidiousness as in food for the body. Our cheap literature is much on a par with our cheap food, and is, moreover, as eagerly bought and devoured.

**Complaint against a Nurse.**—Clara Mauhwitt, a nurse at the Homerton Fever Hospital, was summoned to Worship Street for an alleged assault committed on a child named Florence Louisa Witherington. The father of the child said that his daughter was sent to the hospital suffering from scarlatina. She died there, and when he saw her body he saw that her throat was cut in three places. Before her death she had complained to him that the night nurse had beaten her, and she had a black eye, which witness saw. He had written to the coroner for an inquest, but the coroner had refused to hold one. He had applied to the hospital manager for an inquiry, but had been told that he could go away and feel satisfied that his child had been

kindly treated. Mr. Ricketts said that he had a letter from the coroner for the district which quite negated the assertion of the complainant that an inquest was refused. The medical officer reported that, beyond the statement of the child herself, he was unable to find the slightest foundation for supposing that the child had been maltreated. He thought that her complaint might have arisen from the fact that, as she refused her medicine, some force was necessary to get her to swallow it. Dr. Collie also reported to the Local Government Board that he found no ground for the complaint, and expressed his opinion that the defendant was a valuable nurse, and that the charge owed its existence to a system of persecution towards her. Mr. Flowers said that he had allowed the inquiry to go on, rather out of order only out of respect for complainant's feelings as a father, as he thought some assault had been committed on his dead child. But he was satisfied that the child had been thoroughly well treated, and, in dismissing the summons, he said that there was not the slightest stain on defendant's character.

## Cleanings.

**Some Inquiries into the Causes of Goitre, and Circumstances under which Cretinism is developed.**

By J. B. WILSON, M.D., Surgeon to the 11th Prince Albert's own Hussars.

(From *The Indian Annals of Medical Science*, No. XXXII.)

BHAGSOO, Dhurmsala, a hill station of the Punjab for British troops, is situated upon a spur of one of the lower ranges of the Himalayan mountains, at a height of about 6,100 feet above the sea-level, in a position of about 78° longitude, and 32° north latitude.

The whole district is hilly; we look below upon the Kangra valley, which stretches from east to west, and is in this neighbourhood about 3,000 feet above the sea-level; we see above in a north-easterly direction successive ranges of the Himalayan mountains varying in height from 10,000 to 18,000 feet. The highest range visible, which bounds us on the north at a distance of about 6 miles, is of primary formation, and consists of granite and gneiss. Except when covered with snow, as it is during the greater part of the year, this range is quite bare, no soil resting upon its stony surfaces. The lower hills, immediately beneath and intervening between the main visible range and this station, are for the most part of sandstone of varying degrees of hardness, and are covered with soil and vegetation, chiefly Himalayan oaks, rhododendrons, and fir trees. The valleys between these hills are rich in deep alluvial soil, largely mixed with pulverised stone. Through the sandstone hills, which are chiefly formed of rich red clay, overlaid with a vegetable mould, are numerous extensive veins of marble-veined limestone, and valuable seams of fine slate, and these stretch to the Kangra valley, below which, at a radiating distance of about ten miles, is the local boundary point in that direction of the present investigation. (a)

The primary source of the water supply is the main visible range; it finds its way to the valleys by streams, whose beds are cut out of, and seen in great numbers along the slopes of the successive hills already referred to.

Amongst the native inhabitants of this district "goitre" abounds. The remark of Dr. Parkes in his manual "that there is want of chemical analysis" in support of the hypothesis that there is no relation between the hardness of water and goitre prompted me, with such unusual opportunities for making investigations in this important and interesting subject at hand, to analyse specimens of the drinking-water obtained from this district within a radius of ten miles.

The preliminary examination of the first six specimens gave negative results, when testing for organic matter, lime, magnesia, iron, &c., and the colour, taste, and smell also indicated more than usual purity; with the object in view, I considered that these results dispensed with further examination except to determine the total hardness of each specimen.

(a) I have to thank the Rev. J. H. Hocking for some geological information concerning this district.



The preliminary examination of the last three specimens indicated a small amount of lime, confirmed afterwards by the soap-test. The colour, taste, and smell indicated purity of the specimens, and there was no reaction produced when testing for organic matter.

TABLE OF CHEMICAL ANALYSIS OF WATER.

No.	Date.	Description.	Source.	Result.
1	1873. July 3	Snow water	From a distance of about 10,000 feet above sea level.	1.73 grs. of total solids per gallon of Clarke's scale.
2	„ 3	Stream ditto	Collected in Bhagsoo.	4.45 grs. do.
3	„ 29	Ditto.....	Procured at Bhagsoo after filtration.	3.5 grs. do.
4	„ 30	Ditto.....	From Seco, a village about 2,500 feet above the sea level, and 7 miles distant.	5.25 grs. do.
5	„ 30	Spring ditto	From a spring at Dhur, a village about 3,000 feet above the sea level, and 5 miles distant.	2.8 grs. do.
6	„ 30	Stream ditto	From Chatroo, a village about 2,500 feet above the sea level, and 6 miles distant.	6.30 grs. do.
7	Sep. 25	Spring ditto	From Grow, a village about 5 miles distant, and 3,000 feet above sea level.	13.3 grs. do.
8	„	Ditto.....	Ditto.....	9.1 grs. do.
9	„	Ditto.....	Ditto.....	10.5 grs. do.

I have also to submit the analyses of 100 cases of goitre, taken indiscriminately from amongst natives residing within a radius of ten miles from this place, with regard to the following points:—

## 1st.—Occupation.

Labourers ...	52
Shoemakers ...	9
Musicians ...	9
Cloth-printers ...	6
Beggars ...	4
Glass-blowers ...	3
Bread-makers ...	3
Silversmiths ...	2
Merchants ...	2
No occupation ...	2
Policeman ...	1
Barber ...	1
Basket-maker ...	1
Carpenter ...	1
Overseer ...	1
Butcher ...	1
Housewives (a) ...	2

100

(a) There were altogether eight females; but when pursuing occupations, they were returned accordingly in the list with the males.

2nd.—The average number of pulsations per minute of the 100 cases examined, arranged according to the following ages:—

Between the ages of 7 and 10 there were 3 cases, and the average radial pulsation per minute was 101½.

Between the ages of 11 and 20 there were 26 cases, and the average radial pulsation per minute was 93½.

Between the ages of 21 and 30 there were 47 cases, and the average radial pulsation per minute was 86½.

Between the ages of 31 and 40 there were 14 cases, and the average radial pulsation per minute was 84½.

Between the ages of 41 and 50 there were 4 cases, and the average radial pulsation per minute was 84.

Between the ages of 51 and 60 there were 4 cases, and the average radial pulsation per minute was 92. (a)

Between the ages of 61 and 80 there were 2 cases, and the average radial pulsation per minute was 70.

3rd.—The time of life that the disease made its appearance:—

In 30 cases it appeared during infancy and childhood.

In 42 cases it appeared between the ages of 10 and 20 years.

In 17 cases it appeared between the ages of 21 and 30 years.

In 6 cases it appeared between the ages of 31 and 40 years.

In 4 cases it appeared between the ages of 41 and 50 years.

In 1 case the time of appearance was not known.

4th.—Concerning the transmission of the disease from one parent, or both, to offspring:—

(a) In 16 cases the parents, one or both, had been the subjects of goitre.

(b) In 9 of these cases the subjects were of dull intellect; in some cases approaching cretinism.

(c) In 4 of these the subjects were complete cretins. (In 2 of these cases it was stated that the mothers had very large goitres.)

(d) In 3 of these the subjects were not of dull intellect.

(e) There were 5 cases of dull intellect in which neither parent had suffered from goitre.

The results of the chemical analysis seem to strengthen the theory that it is not absolutely necessary for people to drink hard water before they can become affected with ordinary goitre; indeed, the extreme purity of some of the specimens examined, and which are and have been daily consumed by these goitrous people for years, leads one to conclude that the disease is not connected with the composition of the water at all.

The classification of the cases according to occupation shows an excess of the disease to occur amongst those whose daily duties are most laborious; for we see 52 per cent. of the subjects of it to be labourers.

It will be well to define the term "labourer" or "cooly" as it is applied in this classification. His duties are either to carry heavy loads strung upon his shoulders and back, or in company with others, to carry for long distances in a dooly (an eastern conveyance borne by men) European passengers.

The labourer or cooly in this district is often employed in carrying and cutting stones, building walls, and cultivating land. I wish to mention the attitude that he assumes when engaged in any occupation of this kind. He is rarely seen in the erect posture unless conveying loads; all other duties he pursues in a position that is peculiar to eastern countries.

The soles of his feet rest upon the ground, and the *nates* are brought into close proximity to the heels, by the thighs being flexed on the body, and the calves of the legs being applied to the posterior surface of the thighs. In this position also the shoemaker and other artisans pursue their work, for chairs and stools are never employed by them, even when at rest. With regard to the time of life that the disease usually appears, it will be seen that in 42 per cent. of the cases it first made its appearance between the ages of 10 and 20—a period including the time of life when active labour is first pursued; also the era of life when the constitution receives the new impulse and modification of puberty. The time of life that I found next in order susceptible to the disease was the unresisting period of infancy and childhood.

(a) In one of these cases the pulse was 100, in another 92, per minute.

It will be seen from the classification of the frequency of the arterial pulsation, that the average results of the cases registered according to age invariably showed a marked excess in frequency. There is great difficulty in obtaining precise information from a native, but when it could be obtained, I always found that the subjects of goitre were liable to palpitation of the heart.

This associated condition I invariably found amongst Europeans here resident who were the subjects of ordinary goitre. As far as it goes, the last classification shows a tendency for a degenerate form of intellect to be present in the offspring of goitrous parents, and that cretinism does not exist except in the offspring of parents who are the subjects of this disease. Before I venture to submit some conclusions and facts in support of them, based upon these investigations, I must mention the very universal frequency of this disease in hilly and mountainous districts. The purity of the water consumed by the inhabitants of this district amongst whom goitre has existed so long, and is daily reappearing, naturally leads one to conclude that the disease is not connected with the composition of the water at all. There is strong evidence in favour of the theory that ordinary goitre, like the exophthalmic variety, is entirely a circulatory disease, and that its tendency to occur is encouraged, and in some cases induced by the following conditions when the constitution is in a reduced state, and thus favourable to the invasion of this disease:—

1st.—Active occupation, necessarily so much more severe in hilly districts, seems to influence the production of this disease to a great extent, as is shown by its so frequent occurrence in those who lead a laborious life, or pursue active duties in a constrained position, and by the comparative immunity there is in those oppositely circumstanced, except they are in a relaxed and depressed state of health. The effects of violent exercise upon the circulation and blood-vessels generally are well-known, and it is only necessary, on this point, to refer to the relation of the thyroid gland to the large vessels of the heart, its remarkably large supply from them, and its dense capillary structure and consequent ready liability to enlargement from the dilatation of its vessels, under the conditions produced by violent and prolonged exercise.

2nd.—The effect of elevation from the sea-level upon the circulation of people residing in high mountainous districts seems to be favourable to the production of goitre, and in some cases the chief cause of the disease; hence the more frequent occurrence of the disease in such districts. The frequent complaints of people after arriving from the plains at a high elevation, of palpitation, sense of giddiness, the frequent bleeding at the nose, and the invariable increase of the frequency of the pulse, are all symptoms which point to a diminution of force upon the balance of the circulation as the cause of them. Nor is the loss of balance difficult to account for, when we remember that at the sea-level there is a pressure of 15lbs. on the square inch, and, calculating that the atmosphere reaches 45 miles around the earth, the loss of pressure resulting from this elevation would be equal to about 6·06oz. avoirdupois on the square inch, or a little more than one ounce less of pressure on each square inch of the body per every thousand feet ascended. The pressure would be a little less, though, for this calculation, contrary to accepted facts, supposes the 45 miles of air to be of uniform density.

The increase of force the circulation would receive by the diminution of atmospheric pressure, resulting from ascent within the limits of a certain height, cannot then, I think, be denied. I will relate some cases in which the disease seems markedly to have been produced by residence in elevated locality alone.

Mrs. S—, in November 1866, went to reside in Mussoorie, a hill station of Bengal, between 6,000 and 7,000 feet above the sea-level, and remained there until November 1867. In the month of July 1867, during some slight indisposition, a goitre appeared; it was about the size of a large walnut. It did not increase in size at all, but continued that size until Mrs. S— went down to the plains again. She remained in the plains until August 1873, and during the whole time no more enlargement of the gland was noticed by her. She visited this station in August 1873, and before she had resided here a month, found that the gland was rapidly getting bigger. It is now (September 1873) the size of a small apple, and rather painful. She is subject to attacks of intermittent fever; she is now free from the fever, but the pulse is 108 per minute, and she often suffers from palpitation. There is no exophthalmic appearance.

Mrs. B—, a sergeant's wife, states that, in 1860,

when she was aged 8 years, she went from the plains to Sinawur Lawrence Military Asylum, a sanitarium situated about 6,000 feet above the level of the sea. Before she had resided there a year a small goitre appeared, and has remained the same size ever since. She herself says that she is quite well, the pulse is 100 per minute, and she often suffers from palpitation. There is no exophthalmic appearance. At this Asylum every precaution was taken with the water, which was always boiled and filtered before use.

Juhar, a labourer, aged 25 years, came from Grow to Dhurmsala one-half years ago; there is a difference in the height of about 3,000 feet between these places, the latter being the higher. After arriving he took to new employment, much more laborious than that he had pursued below. After a residence of six months, the goitre first appeared.

Grousam, a beggar, aged 50, first came to this district from the plains eight years ago; shortly after his arrival the goitre began to appear.

3rd.—The increased frequency of the circulation invariably noticed in the subjects of this disease is further evidence of its resulting chiefly from a more active force conveyed to the circulation and so to the thyroid gland, when the resistance necessary to overcome that force does not exist in it; in a similar way, as in one subject aneurism takes place as the result of violent exercise, or from constrained positions, or, as in another, enlargement of the spleen, when subjected to a determination of blood, may take place.

4th.—The fact that the periods of life when this disease most frequently occurs are those when the circulatory powers are in their greatest activity is not, I think, of trivial import in support of the theory here submitted as the primary cause. There is the testimony too that, when the forces upon the circulation resulting from violent exercise in hilly districts and residence at a great elevation from the sea-level appear to be the chief causes necessary for the production of this disease, those engaged in the more active life are the more subject to it, viz., the male population; whilst in my experience concerning the occurrence of the disease in the plains, where it is of infinitely less frequent occurrence, the subjects more liable to it are females, whose constitutions are usually more relaxed and unresisting than those of males, and whose circulation, moreover, is subject to more variation of force, consequent upon the changing phenomena of menstruation and pregnancy.

5th.—If the conclusions arrived at from these inquiries into a limited number of cases hold good generally, the prevalence of this disease once recorded to have taken place in a prison at home, may have arisen not from the water that the prisoners drank, and which was blamed as the cause, but from the excessive exercise at the treadmill, or some other violent labor, and this, too, whilst the inmates were on prison rations.

In conclusion, and with regard to cretinism, the question naturally arises, whether it is found to be generated only in the offspring of goitrous parents, under which circumstances it has invariably been found to occur amongst the subjects of it in the cases of goitre, forming the subject of the present paper.

## NOTICES TO CORRESPONDENTS.

**✍ CORRESPONDENTS** requiring a reply in this column are particularly requested to make use of a *distinctive signature or initials*, and avoid the practice of signing themselves "Reader," "Subscriber," "Old Subscriber," &c. Much confusion will be spared by attention to this rule.

If Dr. Boyd Mushet will send his MS. it will be returned to him if not approved.

**PODALIRIUS** will find his letter with reply in the *Journal of the Irish Medical Association*.

**NO ACCOUNTING FOR TASTE.**—The latest American story, remarks the *Observer*, is of a young lady who had an extraordinary taste for clay, which she ate in great quantities. Of late her general behaviour had been rather strange, and she frequently said that she felt as if she could take wings and fly. The other day she rushed out of the house, flapped her arms as though they were wings, sprang ten feet in the air, and fell to the ground dead. A post-mortem examination showed that she was swarming with grasshoppers, and the conjecture is that their desire to migrate with their fellows led to the girl's eccentric conduct.

The young lady's name is set down as Boomshine, possibly a misprint for "moonshine."

AN AMERICAN SURGEON will find an answer to his inquiry upon the front page of advertisement columns.

THE PROFESSION IN EUROPE.—The *Golos* of St. Petersburg states that in Russia there is but one physician to every 17,800 souls. There are governments, such as that of Perm, circles like that of Sherdink, where the proportion is still smaller, and there is scarcely one physician to 60,000 souls. There is, moreover, one hospital to every 175,000 inhabitants; one for women in labour to every 6,000,000; one for foundlings to every 1,350,000; one lunatic asylum to every 390,000; one deaf and dumb institution to every 11,000,000. The Russian journal says that the army is better provided for, there being one hospital to every 5,000 men. In Prussia the proportion is one to 1,250; in Italy there is one physician to every 2,280 inhabitants; in England there is one medical man (surgeons included) to every 3,180.

Dr. BARTLE will please receive our thanks.

SUSCRAINER.—The appointment is in the hands of Colonel Stewart Wood, the Inspector-General. The dispensary medical officer is always chosen, if there be no one else previously in possession; but the Inspector-General will not—and we think very properly—oust an efficient officer for the purpose of giving the office to the dispensary medical officer. We state this from our knowledge of the course pursued under similar circumstances, not from any direct official information on the subject. The Inspector-General's office at Dublin Castle is a type of the Jack-in-office style of doing business, in which the affairs of the public should not be transacted. The officials of the R. I. C. office seem to think that impertinence to the public is the fashion in military quarters, and as they inspire to ape the soldier in this and all other matters, nothing but an ungentlemanlike snarl can be elicited from them in response to inquiries.—Ed. M. P. & C.

THE case of "Strangulated Inguinal Hernia" reported in our last issue was under the care of Dr. W. H. Middleton, in the Westmeath County Infirmary. The revised proof, in which the author's name appeared, did not reach us in time to enable us to correct the omission.

#### BOOKS, PAMPHLETS, AND MEDICAL JOURNALS RECEIVED.

Medical Charity: its Abuses and How to Remedy them. By John Chapman, M.D. London: Trübner.

Lettres Médicales sur l'Angleterre. Par le Docteur G. Delvaile. Paris and London: Baillière and Co.

Chronic Inversion of the Uterus. By Prof. J. P. White, Albany, U.S.A.

Domestic Management of Children. By Dr. Braidwood.

Free Phosphorus in Medicine. By Ashburton Thompson.

Hardwicke's Science Gossip. Students' Journal. The Obstetrical Journal. The Clinic. The Sanitary Journal. British Journal of Dental Science. The Practitioner. Tribune Medical. Le Progrès Médical. The Microscopical Journal. Philadelphia Medical Times. Medico-Pharmaceutical Review. The Indian Medical Gazette. The Canada Lancet. Boston Journal of Chemistry. Boston Medical and Surgical Journal. Nashville Journal of Medicine and Surgery. La France Médicale. New York Medical Journal. Journal de Médecine et de Chirurgie. Detroit Review of Medicine. The Medical Examiner. The New York Psychological Journal. Lyon Medical. La Presse Médicale. El Anfitrteo Anatomico Espanol, &c., &c.

#### VACANCIES.

Stranorlar Union Dispensary District. Medical Officer. Salary, £100 per annum, exclusive of fees. Applications to be addressed to Mr. Gunning, Hon. Sec. (See Advt.)

University College, London. Professorship of Comparative Anatomy and Zoology. Full information of Mr. Robson, at the College.

St. Marylebone, London. Medical Officer for the Christ Church District. Salary, £230 per annum. Application to be made to the Clerk, at the Union Office.

Queen's Hospital, Birmingham. House Surgeonships. Salary, £50 per annum, with board and residence. Address the Secretary.

Bedford General Infirmary. House Surgeon. Salary, £100 per annum, with board and residence. Testimonials to the Chairman of Committee.

Three Counties Pauper Lunatic Asylum. Resident Medical Superintendent. Salary, £600, with furnished house. Applications to the Clerk of Committee, St. Neots, Hunts.

Lutterworth Union. Medical Officer. Salary, £104 per annum for the District, and £30 for the Workhouse. Apply to the Clerk of the Union.

Ripon Dispensary. Resident Medical Officer. Salary, £100 per annum. Full particulars of the Hon. Sec.

Liverpool Dispensary. Assistant House Surgeon. Commencing salary at £108 per annum, with apartments. Address the Secretary.

St. Mary's Hospital, Manchester. Medical Officer. Salary, £60 per annum, with board and residence. Applications to the Secretary.

Kent. Public Analyst. Remuneration by fees. Address the Clerk of the Peace, Maidstone.

Manchester, Owens College. Lectureship on Chemistry. Mr. Nicolson will supply full particulars.

Westminster Hospital. Physician and Assistant Physician. Honorary election on the 23rd prox. Testimonials to be sent in by the 15th. Brompton Consumption Hospital. Resident Clinical Assistant.

Hospital for Stone, London. House Surgeon. Salary, £50 per annum. Apply to the Secretary.

Hospital for Women, London. Dispenser. Particulars of the Secretary.

Woolwich Union, Kent. Dispenser for the Infirmary at Plumstead. Salary, £60 per annum. Applications to the Clerk of the Union, Plumstead.

#### APPOINTMENTS.

ASH, Dr. L., Medical Officer of Health for the Rural Sanitary District of Hol-worthy, Devonshire.

BAKER, E. L., L.R.C.S. Ed., Resident Medical Officer to the York Dispensary.

CHAPMAN, F. R., M.B., C.M., House Surgeon to the Hull and Southcoates Dispensary.

COTTON, H. J., M.B., C.M., M.R.C.S.E., a House Surgeon to the Edinburgh Royal Maternity Hospital.

DAVIES, W. M., M.B., C.M., L.R.C.P. Ed., a Medical Officer to the County Hospital, Huntingdon.

DAVIES, H. A., M.D., C.M., Medical Officer, Public Vaccinator, and Registrar of Births, &c., for the Newport Dispensary District and Workhouse, co. Mayo.

DITTMAR, W., F.R.S.E., Professor of Chemistry at Anderson's University, Glasgow.

FOTHERGILL, J. M., M.D., Junior Physician to the West London Hospital, Hammersmith.

HARVEY, C. A., M.D., L.A.H. Dub., Resident Apothecary and House Surgeon to the South Charitable Infirmary and County Hospital, Cork.

HEDLEY, J., M.R.C.S.E., a Medical Officer to the North Riding Infirmary, Middlesborough.

HESSEGRAVE, J., M.R.C.S.E., Medical Officer of Health for the combined Golcar, Linthwaite, Longwood, Marsden, Scammonden, and Slaithwaite Urban Sanitary Districts.

HOURIGAN, W. P., M.D., Medical Officer and Public Vaccinator for the Tullaroan Dispensary District of the Kilkenny Union.

KENNEDY, D. A., M.D., Medical Officer to the Liverpool North Dispensary.

LAMB, J., M.R.C.S.E., a Medical Officer to the B'kenhead Ladies' Charitable Institution and Lying-in Hospital.

LEYS, P., M.B., C.M., House Surgeon to the Perth City and County Hospital.

LONGOTHAM, G., M.R.C.S.E., a Medical Officer to the North Riding Infirmary, Middlesborough.

M'CREEERY, J. O., L.R.C.S.I., Medical Officer and Public Vaccinator for the Missenden District of the Amersham Union.

RADAGLIATI, A. C. F., M.D., L.R.C.S. Ed., Assistant Surgeon to the Bradford Eye and Ear Hospital.

ROE, R. G., L.R.C.P. Ed., L.R.C.S. Ed., Medical Officer, Public Vaccinator, and Registrar of Births, &c., for the Ballyroy Dispensary District of the Newport Union, co. Mayo.

SCOTT, H. M., L.K.Q.C.P.I., L.R.C.S.I., Medical Officer, Public Vaccinator, and Registrar of Births, &c., for the Achill Dispensary District of the Newport Union, co. Mayo.

TREVES, W. K., F.R.C.S.E., Medical Officer of Health for the Margate Urban Sanitary District.

WEST, R. E., M.R.C.S.E., Medical Officer of Health for the Tavistock Rural Sanitary District.

WILLIAMS, W. E., M.R.C.S.E., Medical Officer of Health for the Bed-welly Rural Sanitary District.

#### Marriages.

BARTLETT—MILLS.—On the 22nd inst., at St. Mary Magdalen Church, St. Leonard's-on-Sea, James Prime Bartlett, late Resident House Surgeon to the Brompton Consumption Hospital, to Amy Emmeline Strange, eldest daughter of J. H. Mills, Esq., of Stratford Place, Camden Square.

HERON—EVANS.—On the 17th inst., at the British Consulate, Frankfurt, G. Allan Heron, M.D., of Glasgow, to Harriett Maria, only surviving daughter of the late Charles Evans, Esq.

PHILPOTS—JONES.—On the 17th inst., at St. Mary's Church, Longfleet, Dorset, John Richard Philpots, L.R.C.P. Ed., L.R.C.S. Ed., of Moorcroft, to Lily Mary, of Parkstone, younger daughter of K. W. H. Jones, Esq.

THOMPSON—NICHOLLS.—On the 24th inst., at St. Luke's, West Holloway, William Allin Thompson, Surgeon, of Oxford, to Laura Catharine, eldest daughter of Francis Nicholls, of Hillmartin Road, West Holloway.

#### Deaths.

FALCONER.—On the 15th September, at St. Anne's, Laswade, John Falconer, Surgeon, late of Loanhead, aged 67.

HICKSON.—On the 6th September, at Mersey Road, Rock Ferry, Robt. Hickson, M.D., aged 82.

HOADLEY.—On the 2nd April, at sea, on board the ship *Stonehouse*, Mary Anna, the beloved wife of Robert Hoadley, M.D., late of Auckland Lodge, Fulham. Also on the 6th May, their infant daughter.

MACKENZIE.—On the 19th September, at Upper Woburn Place, P. M. Mackenzie, M.D., Member of the Legislative Council of the Island of Tobago, aged 53.

ROBSON.—On the 21st September, at Iver, Bucks, F. A. H. Robson, Esq., M.D., F.R.C.S.

ROE.—On the 17th September, J. R. Roe, L.R.C.P.E., of Br. d'gnorth, Salop.

STOKES.—On the 18th September, John F. Stokes, L.R.C.P. Ed., of Brook Road, Bootle, aged 26.

**ST. THOMAS'S HOSPITAL, ALBERT EMBANKMENT, WESTMINSTER BRIDGE, S.E.**

The MEDICAL SESSION for 1874 and 1875, will commence on THURSDAY, the 1st OCTOBER, 1874, on which occasion an ADDRESS will be delivered by Mr. MACCORMAC, at Two o'clock.

Gentlemen entering have the option of paying £40 for the first year, a similar sum for the second, £20 for the third, and £10 for each succeeding year; or, by paying £105 at once, of becoming perpetual Students.

Private Classes for Students preparing for Matriculation, and for the Preliminary Scientific Examination of the University of London, or for other Examinations, are conducted by members of the Staff, and embrace instruction in Chemistry, Natural Philosophy, Botany, and Comparative Anatomy. These Classes can be attended without entering at the Hospital.

**PRIZES AND APPOINTMENTS FOR THE SESSION.**

THE WM. TITE SCHOLARSHIP, founded by the late Sir WM. TITE, C.B., M.P., F.R.S., the proceeds of £1,000 Consols, tenable for three years.

First Year's Student's. WINTER PRIZES—£20, £15, and £10. SUMMER PRIZES—£15, £10, and £5.

Second Year's Students. WINTER PRIZES—£20, £15, and £10. SUMMER PRIZES—£15, £10 and £5. The DRESSERSHIPS, and the CLINICAL and OBSTETRIC CLERKSHIPS.

Third Year's Students. WINTER PRIZES—£20, £15, and £10. Mr. GEORGE VAUGHAN'S CHESELDEN MEDAL. THE TREASURER'S GOLD MEDAL. THE GRAINGER TESTIMONIAL PRIZE. THE TWO HOUSE PHYSICIANSHIPS. THE TWO HOUSE SURGEONCIES. THE RESIDENT ACCOUCHERSHIPS. TWO MEDICAL REGISTRARSHIPS, at a Salary of £40 each, are awarded to Third and Fourth year's Students, according to merit.

THE SOLLY MEDAL, with a Prize of at least 10 Guineas, will be awarded at the end of the Session, to a Student of the Third, Fourth, Fifth, or Sixth years, for the best Report of Surgical Cases.

**MEDICAL OFFICERS.**

HONORARY CONSULTING PHYSICIANS.—Dr. Barker and Dr. J. Risdon Bennett.

HONORARY CONSULTING SURGEON.—Mr. Frederick Le Gros Clark.

PHYSICIANS.—Dr. Peacock, Dr. Bristowe, Dr. Clapton, Dr. Murchison.

OBSTETRIC PHYSICIAN.—Dr. Barnes.

SURGEONS.—Mr. Simon, Mr. Sydney Jones, Mr. Croft, Mr. MacCormac.

OPHTHALMIC SURGEON.—Mr. Liebreich.

ASSISTANT PHYSICIANS.—Dr. Stone, Dr. Ord, Dr. J. Harley, Dr. Payne.

ASSISTANT OBSTETRIC PHYSICIAN.—Dr. Gervis.

ASSISTANT SURGEONS.—Mr. F. Mason, Mr. Hy. Arnott, Mr. W. W. Wagstaffe.

DENTAL SURGEON.—Mr. J. W. Elliott.

ASSISTANT DENTAL SURGEON.—Mr. W. G. Ranger.

RESIDENT ASSISTANT PHYSICIAN.—Dr. Turner.

RESIDENT ASSISTANT SURGEON.—Mr. McKellar.

APOTHECARY.—Mr. R. W. Jones.

MEDICINE.—Dr. Peacock and Dr. Murchison. SURGERY.—Mr. Sydney Jones and Mr. MacCormac. GENERAL PATHOLOGY.—Dr. Bristowe. PHYSIOLOGY AND PRACTICAL PHYSIOLOGY.—Dr. Ord and Dr. John Harley. DESCRIPTIVE ANATOMY.—Mr. Francis Mason, and Mr. W. W. Wagstaffe. ANATOMY in the DISSECTING ROOM.—Anatomical Lecturers.—Mr. Rainey and Dr. W. Reid. PRACTICAL and MANIPULATIVE SURGERY.—Mr. Croft. CHEMISTRY and PRACTICAL CHEMISTRY.—Dr. A. J. Bernays. MIDWIFERY.—Dr. Barnes. PHYSICS and NATURAL PHILOSOPHY.—Dr. Stone. MATERIA MEDICA.—Dr. Payne. FORENSIC MEDICINE and HYGIENE.—Dr. Stone and Dr. Gervis. COMPARATIVE ANATOMY.—Mr. C. Stewart. OPHTHALMIC SURGERY.—Mr. Liebreich. BOTANY.—Mr. A. W. Bennett. DENTAL SURGERY.—Mr. J. W. Elliott. DEMONSTRATIONS MORBID ANATOMY.—Dr. Payne. MORBID ANATOMY and PRACTICAL PATHOLOGY.—Mr. H. Arnott. MENTAL DISEASE.—Dr. Wm. Rhys Williams.

T. B. PEACOCK, M.D., Dean. R. G. WHITFIELD, Medical Sec.  
Any further information required will be afforded by Mr. WHITFIELD.

**UNIVERSITY OF LONDON.—MATRICULATION and PRELIMINARY SCIENTIFIC EXAMINATIONS. SPECIAL CLASSES for these Examinations are held at ST. BARTHOLOMEW'S HOSPITAL.**

The Classes are not confined to Students of the Hospital.

A Class for the Matriculation Examination is held twice in each year, from October to January, and from March to June.

A Class for the Preliminary Scientific Examination is held from January to July.

For particulars, application may be made personally or by letter to the Warden of the College, St. Bartholomew's Hospital.

**ST. BARTHOLOMEW'S HOSPITAL and COLLEGE.—**

**SCHOLARSHIP in SCIENCE.** Two Scholarships in Science have been founded at St. Bartholomew's Hospital. 1. An Open Scholarship of the value of £100, tenable for one year, to be competed for in September. The subjects of examination are—Physics, Chemistry, Botany, and Zoology. The successful candidate will be required to enter at St. Bartholomew's Hospital in October next. 2. Preliminary Scientific Scholarship of the value of £50, tenable for one year, to be competed for in October next by Students of the Hospital of less than six months' standing. The subjects of examination are identical with those of the Open Scholarship. For further particulars and syllabus of subjects, application may be made, personally or by letter, to the Warden of the College, St. Bartholomew's Hospital.

**ST. BARTHOLOMEW'S HOSPITAL and COLLEGE.—**

The WINTER SESSION will begin on THURSDAY, October 1.

The Clinical Practice of the Hospital comprises a service of 710 Beds, inclusive of thirty-four Beds for Convalescents at Highgate.

Students can reside within the Hospital walls, subject to the College regulations.

For all particulars concerning either the Hospital or College, application may be made, personally or by letter, to the Resident Warden of the College.

A Handbook will be forwarded on application.

**ST. GEORGE'S HOSPITAL MEDICAL SCHOOL.—**

The WINTER SESSION will commence on THURSDAY, 1st OCTOBER, with an Introductory Address by Dr. Dickinson, at 4 p.m., in the Hospital.

The system of Clinical Teaching has been arranged so as to afford every student personal instruction in the wards from the Physicians and Surgeons themselves.

The courses of Lectures on Physiology and Surgery have been remodelled in conformity with the new regulations of the College of Surgeons.

Special departments have been organised for practical instruction in Midwifery, Ophthalmic Practice, Skin Diseases, Vaccination, and Dentistry. Lectures on Public Health are given by the Lecturer on Medicine.

Pathology, Morbid Anatomy, Psychological Medicine, and Comparative Anatomy are taught in distinct courses.

Instruction is given in all the special modes of medical and surgical investigation.

The following paid offices are offered for competition annually—viz., Obstetric Assistant, Curator of the Museum, Demonstrator of Anatomy, Medical and Surgical Registrars.

The House-Physicians and House-Surgeons are selected by merit from among the Perpetual Pupils without payment, board and lodging in the Hospital being provided at the expense of the Governors.

The Wm. Brown Exhibitions of £100 per annum, tenable for two years, and £40 per annum, tenable for three years; the Brackenbury Prizes of £35 each annually, are awarded, along with various other prizes, by competition among the students.

The prospectus may be obtained by application to the Secretary at the Hospital, and any further information will be given by Dr. Barclay, Treasurer, or Dr. Wadham, Dean of the Medical School, either personally or by letter.

**ST. GEORGE'S HOSPITAL was RE-OPENED for the**

reception of Patients on the 9th SEPTEMBER. A new Microscope Room for the instruction of Students in Practical Histology has been added to the School Buildings.

**TO MEDICAL MEN, DENTISTS, &c.—**

The Widow of a professional man wishes to let a Dining-room Floor (two reception rooms) in a superior house a few doors from Russell Square.—63 Guilford Street, London, W.C.

**WESTMINSTER HOSPITAL MEDICAL SCHOOL,**

Opposite WESTMINSTER ABBEY.—The SESSION 1874-5 will commence on THURSDAY, OCTOBER 1st, with an Introductory Lecture by Dr. POTTER. The Address will be followed by the Distribution of the Prizes, and a Conversation in the Board-room. The new Physiological Laboratory will be completed by October 1st.

The Examination for the Entrance Scholarship will be held on the 2nd and 3rd of October.

5th August, 1874. GEORGE COWELL, Dean.

**B R I S T O L M E D I C A L S C H O O L.**

The WINTER SESSION will commence on THURSDAY, October 1. Prospectuses may be obtained on application to

GEORGE F. BURDER, M.D., Hon. Sec. Medical School, Old Park, Bristol, August, 1874.

**THE LONDON HOSPITAL and MEDICAL COLLEGE.**

The next WINTER SESSION will commence on Thursday, October 1st, 1874, when the Introductory Lecture will be given at 3 p.m., by SAMUEL FENWICK, M.D., Assistant-Physician to the Hospital.

General Fee to Lectures and Hospital Practice, 90 guineas, payable in two instalments of 45 guineas each. Library Fee, £1 1s. Special entries can be made to Lectures or Practice.

The Hospital contains 600 beds. The In-patients during 1873 were 5,613, and the Out-patients 43,803; total, 49,421.

The Following Prizes and Appointments are offered, without any further payment, to Students paying the general fee of 90 guineas:—

Seven Scholarships to be offered for competition in the Winter Session:

1. A Scholarship of £30 to the Student of less than three months standing who passes in October the best examination in the subjects required at the Preliminary Examination.
2. A Scholarship of £20 to the Student of less than three months' standing placed second in the above examination.
3. A Scholarship of £20 in Human Anatomy for first year Students; to be awarded in April, 1875.
4. A Hospital Scholarship, value £25, in Anatomy, Physiology, and Chemistry, for first year and second year Students; to be awarded in April, 1875.
5. A Hospital Scholarship, value £20, for Clinical Medicine; to be awarded in April, 1875.
6. A Hospital Scholarship, value £20, for Clinical Surgery; to be awarded in April, 1875.
7. A Hospital Scholarship, value £20, for Clinical Obstetrics; to be awarded in April, 1875; and a Prize of £5 to the Student who has attended most Midwifery cases for the Hospital during the preceding twelve months.

The Duckworth Nelson Prize, value £10, for Practical Medicine and Surgery (Biennial), 1875.

Money Prizes to the value of £60 given annually by the House Committee for zeal in Dressing Out-patients and knowledge of Minor Surgery.

For particulars as to appointments, &c., see the Prospectus, which will be forwarded on application to the Bedell of the London Hospital Medical College, Turner Street, E.

Further information may also be obtained from Mr. JAMES E. ADAMS, Treasurer, 10 Finsbury Circus, E.C.; or Mr. WARREN TAY, Vice-Dean, at the Medical College.

# The Medical Press & Circular.

"SALUS POPULI SUPREMA LEX."

WEDNESDAY, OCTOBER 7, 1874.

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## The Introductories.

### THE LONDON HOSPITAL.

Lecture delivered October 1st.

By SAMUEL FENWICK, M.D., F.R.C.P., Lecturer on Physiology to the Hospital.

GENTLEMEN,—I know few things more difficult than to give an introductory lecture. Whatever I could say about medical education has been so often repeated, and has been told so much better than I can hope to do it, that I have always shrunk from the performance of the task. But you may, then, fairly ask, Why have an introductory address at all? Why not let each lecturer give to his students such preliminary instructions as they may require? The best reason for retaining this time-honoured custom is, that many of those just commencing their studies are not only ignorant of all the sciences allied to medicine, but are unpractised even in the methods by which they can most successfully pursue them. Hitherto their education has been restricted to languages and other branches of knowledge only requiring a quick and retentive memory for their mastery, or they have been taught mathematics, in which truths are deduced from facts intuitively recognised by the mind. But in medical science the student has to make himself acquainted with the facts from which conclusions have been derived; he has to judge how far many of the inferences he is taught are justified by facts, and he has often to decide for himself between the claims of opposing theories. It is not, therefore, surprising that many who enter upon the study of medicine with a great reputation for intellectual ability obtained in other pursuits should fail to satisfy the expectation of their friends, while others who have been previously undistinguished for talent rise rapidly to eminence and renown. Such being the case, there is good reason we should attempt each year to lay before those who are entering on their professional career some remarks as to the best method of pursuing their medical studies. The term "medical studies" will no doubt suggest to the minds of most of my hearers the two or three

years during which they are compelled to attend certain courses of lectures with a view of obtaining their diploma. Many are in the habit of imagining themselves students only till they can obtain a licence for practice, and they suppose as soon as this is acquired all necessity for intellectual exertion has ceased. No opinion can be more unfounded. Gentlemen, you are now entering upon a career in which the necessity for the acquirement of scientific knowledge can only terminate when the career itself ceases. We can admit no distinction between the periods before and after passing an examination, excepting that in the former you are answerable for the extent and thoroughness of your professional information to your teachers and legal examiners, whilst in the latter you are responsible to every patient who may seek your aid, as well as to the Creator who has bestowed upon you the opportunities of gaining that knowledge that may enable you to confer health and happiness on your fellow-creatures. But if everyone has to remain a student through the whole of his professional life, it is evidently a matter of importance to determine what are the mental faculties he should especially cultivate in order to fit him for the performance of the duties which will devolve upon him. Now, all education has for its object either to store the mind with knowledge, or so to train and improve the mental faculties that the individual may more readily acquire knowledge for himself. The former of these may be effected by the teaching of others; the latter can only be accomplished by yourselves. It is, in fact, *self-education*. The knowledge you obtain for yourselves is not only more useful in its character than what you acquire from others, but, from its being more completely assimilated, it can be more readily turned to practical account. It is of self-education, or rather of the best method of conducting it in regard to medical science, that I intend to speak to you to-day. It consists in the constant employment of certain mental powers, so that they may be not only improved by exercise, but their use may become gradually strengthened into habits. When you remember that you are just at that period of life when habits of thought are most readily formed, and are most enduring, you will see that such a subject is of no small importance. The first



habit I would advise you to cultivate is that of minute and careful observation. When you look into the history of medicine you will see that all real progress has been made just in proportion as practitioners have founded their opinions on the close observation of disease. So long as they trusted to vague speculations upon pathological phenomena so long were their theories unsettled and their practice uncertain. But, you may say, what is easier than to observe correctly? why trouble ourselves to make it a habit? is anything more simple or easy than to follow the evidence of our senses? Unfortunately, history teaches us that men in all ages have neglected observation, or have allowed the plain evidence of their senses to be blinded by preconceived ideas. Let us look, for instance, at the simplest operation in surgery, the dressing of a wound. In the present day the youngest student will cleanse the wound, draw its edges together, and maintain them in contact, with a certain expectation of seeing the raw surfaces unite. Now, at all periods, the natural union of wounds must have presented itself to the most careless observer. Everyone must have seen how the injuries received by the lower animals are repaired; how the hair becomes mixed with blood and forms a means of uniting the edges, and how rapidly and completely a tear or cut becomes permanently closed. But in a warlike age, when all Europe was a camp, and when the slightest quarrel was settled by the sword, injuries were of constant occurrence, and we might suppose that the natural closing of a wound by adhesion must have forced itself upon the observation of everyone. Nevertheless, the surgeons of former days did not believe that wounds could heal of themselves. They held that every injury to the skin, however slight, must go through four distinct processes before it could unite. Under this impression they encouraged suppuration, cut off all loose flaps of skin without scruple, plugged wounds with tents of cloth or of metal, and dreaded above all things that simple and natural process of adhesion which we in the present day always encourage. To use the words of a well-known author, "surgeons looked upon surgery and cruelty as inseparable, and if a wound healed rapidly all subsequent ailments which might befall the patient were attributed to the mischance." Nor were these prejudices confined to the members of the profession; the public at large were imbued with the same idea. But, you will say, such ignorance could not last long. It would be so apparent that wounds could heal by adhesion that the strongest prejudice would be unable to prevent the acceptance of the fact. History tells us that men for a long period of time preferred to trust to authority rather than to observation, and that when a wound adhered it was attributed to some other agency than the operation of Nature: for example, we find Sir Kenelm Digby, Secretary to Charles I., writing a work in favour of the sympathetic treatment of wounds. He recommends that a piece of cloth dipped in the patient's blood should be placed in a solution and then carefully kept in a temperature the same as the human body, whilst the edges of the wound should be drawn together. In other cases the cure was said to be effected in the dry way. By this plan the weapon by which the injury had been inflicted was smeared over with a sympathetic ointment and suspended in a warm place until the cure was completed. After this there arose another method of treating wounds, named the secret dressing. The wounded part was sucked by the mouth of the operator, so that all blood and extraneous matters were removed, after which the edges were neatly drawn together and retained in position by bandages. The cure, however, was supposed to be effected, not by the closing of the wound, but by the grimaces of the operator, by signing the patient with the sign of the cross, and by an unintelligible jargon that was muttered over him. Now, during all this long period, while eminent surgeons were inventing medicines for the cure of wounds and philosophers were anointing the weapons by which the injuries were inflicted, men were so little accustomed to observe, or were so biased by prejudice, that they were willing to attribute their success to

any circumstance rather than that simple operation of Nature which was constantly taking place before their eyes. Many of you, no doubt, think it would be impossible for such ignorance to be persisted in in the present day. This is to a certain extent true, for we are now trained to regard observation as our guide. But I fear we have still many a wide-spread belief that rests rather on authority than observation, and that many a much-prized remedy, even now, is as powerless over the progress of disease as was the sympathetic powder in the healing of wounds. But it is easy to show I do not exaggerate the importance of observation, and the necessity that exists that you should keep yourselves clear of prejudice. Watch the action of your own minds, and you will see how much you dislike any subject that tends to unsettle your present opinions; how you wish to reject facts if they seem to run counter to your present conclusions; how unwilling you are to reopen subjects the discussion of which you believe to be definitely settled. Now, all science is progressive. What we regarded yesterday as a certain truth we have perhaps to doubt to-day, and to modify or reject to-morrow. Every fresh discovery but leads to another in advance, and unless you keep free from prejudice you will be liable to be left far behind in the progress of knowledge. The use of observation is to furnish facts from which conclusions may be drawn; but you must remember that, though your observation may be correct, your inferences may be wrong. Hence arises the necessity for testing them by experiment. In this method of investigation you can vary the conditions under which any particular fact may be observed, and by frequently altering the conditions you can often eliminate from the problem all sources of error, and thus ensure the accuracy of your conclusions. The history of medicine abounds with instances where unaided observations seemed to point at conclusions which subsequent experiments proved to be erroneous; a single example will be sufficient to convey my meaning: In the year 1786, a man one evening, shortly after his supper, received a severe injury on the skull. He was admitted into St. George's Hospital, and died in a few hours. The body was examined next day by John Hunter, who found to his great surprise that a large hole existed in the stomach, and the remains of his last meal had escaped into the peritoneal cavity. No mark of injury could be found likely to have caused the rupture, and the great physiologist was at first puzzled to account for such a circumstance. On thinking over the case, he remembered that the man had been killed whilst digestion was going on, and he was therefore led to suspect that the gastric juice had acted upon the stomach after death, and thus produced the opening which he had discovered. He examined every body brought into the dissecting-room that summer, and, after a series of experiments, he came to the conclusion that after death the gastric juice is capable of dissolving the organ by which it is secreted, although it is unable to act upon it during life. Considerable interest was excited by this discovery, but it was soon forgotten, more especially abroad, where men's minds were fiercely agitated by political occurrences. In the beginning of the present century great attention was bestowed in France on morbid anatomy. Pathologists were not a little surprised to find how frequently after death the stomach presented the appearance of softening. This took place in cases in which during life no symptoms had been observed pointing to disease of the stomach, and they were therefore led to infer that inflammatory softening of the organ was a frequent, insidious, and most fatal malady. Sir R. Carswell, who was then studying in Paris, was made acquainted with these facts, and remembering Hunter's observations, at once surmised that the so-called softening of the stomach was a mere post-mortem effect, and not the consequence of disease. He subjected the matter to the test of experiment. Two animals were killed during the process of digestion: the stomach of one was removed, and carefully washed, whilst that of the other was allowed to remain in the body filled with its contents. Both were examined two days afterwards; the stomach of the last



was found to be softened, and partially dissolved, whilst that of the former was perfectly natural. This, of course, settled the question, and explained the cause of the frequency with which the softening had been remarked. Now, you will observe that there was no fault in this case as regards the facts, but the inferences were incorrect, and a single experiment furnished a satisfactory explanation of an occurrence where unaided observation had only misled. But, on the other hand, it often happens that you are unable to draw any inference at all from your observations until you have explained them by experiments. No name stands higher in medicine than that of Laennec. By his great powers of observation and unrivalled acuteness he not only applied physical methods of diagnosis to the diseases of the lung, but he, in a great measure, exhausted the subject. He was less successful in respect to the heart. Notwithstanding that, he observed and described various murmurs that could be heard when the heart was in a diseased state; his conclusions as to their significance were erroneous. After his death the same confusion as regards the diagnosis of cardiac diseases continued. Amongst those who carefully studied the subject was Dr. Hope, and he was led to suspect that the sources of perplexity arose from an imperfect acquaintance with the causes of the normal sounds. He therefore planned and performed the following experiment: An animal was rapidly killed, and a pair of bellows fixed into the windpipe so as to keep up respiration, and therefore the action of the heart. On opening the chest both the sounds could be readily heard. A fine piece of curved wire was then passed into the artery so as to hook back the aortic valves: one of the sounds immediately ceased, but in its place was heard a loud hissing murmur, exactly similar to that which had so often puzzled the physician when listening to the chest of his patient. Thus a simple experiment cleared up the difficulty that had baffled even the industry and genius of Laennec; and there is now no part of physical diagnosis more easy to the youngest student than that of diseases of the heart. I have been thus particular in drawing your attention to the use of experiment because I believe it will in the future be one of the chief means of investigation. Let us look back at the history of medical science during the present century. Within the first thirty years there sprang up a school of earnest and enthusiastic workers in morbid anatomy. In every disease the condition of each organ was carefully scrutinised, and nothing can exceed the clearness and precision with which the coarser morbid changes were described. As a result of this knowledge, methods of physical investigation were invented by which their conditions could be accurately distinguished during the life of the patient; and to this school we owe the discovery of auscultation and the various other means of physical diagnosis. Within the second third of the century improvements in the microscope placed in the hands of anatomists a new instrument of research, which they were not slow to employ. Investigation was turned into a new channel, and the schools of North Germany replaced in fame those of Paris and Vienna. The discoveries then made seemed to have placed medicine upon a new basis, and vast were the expectations formed as to the future of medical science. Men attempted to base pathology upon cells, fibre, and granules, and hoped to distinguish disease by the microscopic characters of their products. But where do we now find ourselves in this last third of the century? We are no longer disputing as to the shapes and sizes of the various cells, or seeking for an explanation of cancer and tubercle in the forms of their cells, or the sizes of their nuclei. In morbid anatomy the harvest has been long since gathered in; we are now only gleaners in the field, just as in former times investigations in physiology followed hard upon discoveries in anatomy: so now the functional diseases of the organs are claiming the attention of those who have nearly completed their inquiries as to the structural alterations of the human frame. Still more pressing is the necessity of ascertaining what is the changes that occur in nutrition.

Look at the discussions in the medical societies during the past year; they are not upon matters of physical diagnosis, or on the changes in the shapes or sizes of organs, but our leading men are engaged in disputing as to the causes of blood diseases, such as pyæmia, or the nature of cancer and tubercle. And why do these discussions appear to have been so unprofitable? Simply because the various speakers have all been looking at the matters in dispute from an anatomical standpoint. They have been trusting to the microscope where new and improved methods of research are required. I believe that in the future, just as physiology was advanced by experiments and comparative anatomy, so questions in pathology will have to be settled by comparative pathology and by physical, chemical, and physiological experiments. But it is not only as a means of settling difficult and important points in pathology that experiment is useful; the necessity for it will continually force itself upon your notice. New remedies and new methods of treatment are daily brought forward; but how seldom are their merits fairly tested? They seem to be tried in a random way as soon as they are announced; but rarely is an attempt made to test them in such a manner as shall exclude as much as possible sources of error. The consequence is that an indiscriminate employment leads at first to exaggerated opinions as to their value, which is soon followed by disappointment, and often the remedy sinks into unmerited neglect. But there is a third habit, of the greatest importance, which you must carefully cultivate—that of recording your observations at the time they are made. Don't trust to your memory, or write your impressions when the mind has had time to think over and explain away a fact; but put it down at once, simply and truthfully. I have been often surprised how little medical students are in the habit of noting down their own observations. In every lecture-room they may be seen copying the opinions and remarks of their teachers; but how few seem to be aware of the importance of recording what they themselves witness in the wards, or in the post-mortem theatre. And yet a simple fact carefully and honestly noted may long after prove of incalculable value, although at the time it may have appeared to be of no great importance. This might be well illustrated by reference to the history of the discovery of anæsthetics. In 1799 Sir Humphrey Davy succeeded in procuring nitrous oxide gas in a state of greater purity than it had been before obtained, and he commenced a series of experiments with it upon himself. He found that, when taken into the lungs, instead of causing death, it excited a species of intoxication, during which insensibility to pain was one of the most prominent characters. In the next fifty years the exhibition of the effects of the nitrous oxide was a favourite experiment with popular lecturers on chemistry, and the original experiments and observations of Davy were generally known. No attempt was, however, made to employ it as a preventive to pain until 1844, when a Dr. Wells, of Hertford, in America, who was acquainted with Davy's observations, had a tooth removed whilst under the influence of the gas. The operation was performed without suffering, and the experiment was successfully repeated on some other persons. Shortly afterwards Dr. Morton introduced ether as a substitute for the gas. The results were most successful, and the employment of this liquid as an anæsthetic, thus commenced, was rapidly extended. But there were many objections to the ether, and other agents capable of producing similar effects were eagerly sought for. Sir James Simpson, of Edinburgh, substituted chloroform, which soon came into general use. A few years ago the method of preparing the nitrous oxide was again improved, and it is now universally employed in the extraction of teeth, and for other operations which can rapidly be performed. Now, what I want you to observe is, that this, which is perhaps the most valuable discovery ever made in medicine, was the result of observations noted down fifty years before. The experiments were performed with a totally different object in view,

and in all probability they would never have borne fruit had it not been for the careful record left us by their author. The value of recording observations at the time they are made is incidentally shown in the original paper of Sir Humphrey Davy. After the first experiment with the nitrous oxide he remarks: "The next morning the recollection of the effects of the gas was very indistinct, and had not the remarks written immediately after the experiment recalled them to my mind, I should have even questioned their reality." I would advise you, then, to make it a habit to note down the various facts presented to your notice. If you can collect a number of carefully recorded cases, you will find them invaluable for your present guidance, and your future reference. They will often lead you aright when you look in vain for help to the work of others. But in such records you must be careful to keep your minds free from preconceived ideas. Get a habit of marking down only what you see. Keep to the simplest language, and avoid all words that imply a theory. Carefully separate your conclusions from your observations. Subsequent experience may prove the former to be incorrect, but your facts will remain good, and may hereafter lead you to results of the greatest value. But, it may be said, the kind of education you have pointed out may be all very well for the pioneers of science; we have neither the time nor the inclination to be discoverers, but are content merely to practise what we have been taught. Believe me, gentlemen, every one engaged in our profession must be a discoverer as regards *himself*, although he may never communicate to the world at large what he has learned. Every case he sees enforces reflection, and either he is daily arriving at new truths, or his trust in his former beliefs is strengthened till it deepens into prejudice. You can change the properties of matter; you can compress gases into fluids, or fix them in a solid form: but you cannot crystallise mind. Your mental powers are in a state of ceaseless activity, and you can only fit them for the discovery of truth by following the same paths that were trodden by those who have attained to eminence before you. But many a young student will be apt to say, Is not the power of discovery the attribute of genius? How can we hope to tread in the steps of those who have left the impress of superior intellect on the history of science? Gentlemen, there is no greater mistake than to imagine that science owes her progress merely to men of great talents, or that those who have most deeply engraven their names upon her records have gained their distinction simply by the native grandeur of their intellectual conceptions. Amongst the Alpine peasantry there is a widespread superstition that figures of gigantic stature occasionally appear towering high above the clouds; travellers tell us that these so-called giants are no beings of another race, but men whose forms are magnified by the mists by which they are surrounded: so many of these great figures that look down upon us from the pinnacles of science were in their day but men of ordinary intellectual stature, but are magnified through the mists of the contemporary ignorance that enveloped them; They were men who, by patient toil and long persevering industry, scaled the heights of knowledge which others had not tried or dared to mount. But although you may lack originality, or the wish to advance the progress of science, you can, at any rate, imitate the qualities for which men of genius have been distinguished. Every man of scientific renown has exhibited great industry; without this all the genius in the world would be wasted. Aubrey tells us that the sons of Charles I. were committed to the care of Harvey at the battle of Edgehill, but that the great physician was so careful of his time that he was discovered reading a book while the action was going on. Hunter was the last to leave his museum at night, and commenced his labours in the early morning, long before any one else had left his bed. In addition to industry they have all possessed indomitable perseverance. Harvey remarks that, when he first began to study the action of the heart, it seemed to him so complicated that he thought none but God could comprehend it; and yet,

by constant perseverance, he succeeded in rendering this part of physiology so perfect that he left comparatively little for his successors to discover. Hunter used to say that he loved a great difficulty, because he knew he should make a great discovery. It is indeed strange how often we forget that all great works can only be produced by toil. When we look upon a work of art just unveiled before the public gaze we recognise not merely the genius that designed it, but the industry and perseverance of the sculptor in chiseling the solid marble into harmony with his conceptions. But when some great scientific discovery flashes before the eye we are apt to think only of the talents of the discoverer; we forget that equal labour and perseverance were required to bring it to perfection. I have been induced to lay before you the foregoing remarks because I believe it to be especially requisite in the present day to impress upon the mind of the student the necessity of self-education. Formerly too much attention was devoted to practical, too little to theoretical teaching. Now this is changed, and we seem to be passing into the opposite extreme. Numbers are entering the profession who seem to think that books and lectures can supply all the knowledge they need possess, and that to pass an examination with credit is the only aim of their student life. Believe me, gentlemen, books can never supply what can only be afforded by observation and experiment, and we can never by any examination test the acuteness of perception and the soundness of judgment that ought to characterise the physician, or the courage, coolness, and readiness of resource that are requisite for a surgeon. These can be only gained by patient observation and by long experience. It is in affording you a field for gaining these qualities that the London Hospital is especially valuable. Already one of the largest, it will, when its new wing is completed, be by far the greatest hospital in this country. The enormous number of accidents annually treated within its walls have long rendered it famous as a surgical school; whilst the nature of the population by which it is surrounded, the immense extent of the out-patient practice, and the number of special departments, will afford you opportunities for the study of medicine that can nowhere be surpassed. Gentlemen, many of us, teachers and learners, have met together for the first time; but, if you have not altogether missed my meaning, you will have gathered that we are all students alike, and that not one of us, however accomplished he may be, can claim to have finished his task. We indeed dimly discern, at best, many of the great laws by which things mental and corporeal are bound together, and we are often compelled to the utterance of Truth with stammering lips, or to follow her by devious paths and with faltering steps. Nevertheless, none of us, least of all, none of you now entering with enthusiasm on the work before you, will feel faint-hearted if you cast a backward glance at the history of our science and perceive the great progress it has made; you can rest your feet upon some great truths, and from these look forward with confidence to further progress: but, whether it be your lot to add to the number of these discoveries or not, the humblest amongst you cannot fail to fulfil a great and worthy purpose in life if he will honestly, patiently, and perseveringly strive to fit himself for the discharge of his duties in it.

### GUY'S HOSPITAL.

*Abstract of Introductory Lecture delivered October 1st.*

By SIR WM. GULL, Bart., M.D., F.R.C.P., &c.

BEFORE commencing his address the attendance was found to be so large that an adjournment from the hospital theatre to a larger hall, the Bridge House Hotel, had to be made. After a few introductory remarks, in the course of which he referred to his entrance as a student in Guy's Hospital thirty-seven years ago, the lecturer went on to observe that the study of medicine was like a man fettered. It ranged through human nature

in general. It looked at man in every aspect, and had the great collateral advantage for its followers that in pursuing it they were learning something of themselves. What this advantage was to them as medical students was not to be calculated if it duly impressed them with the fact that the laws of human health in its widest signification were part of the laws of moral and intellectual life; that indulgence, sloth, and vice were as contrary to our lower nature as they were to the higher laws within us. Their studies would, however, require constant mental direction. It was a common error with young students to think that it was only by some strong intellectual effort that good work could be done, whereas in truth it was more through patient and well-directed labour. If the first lesson were patience—a patience which knew how to wait, undismayed by what looked insuperable—the next lesson was docility—a readiness to learn at any source, not fastidiously or delicately, not where it might please us, but wherever the facts lie hid. The student's training of to-day must at every step be directed by the light and checks of science, and his acquirements must go hand in hand in the high mental culture which could alone enable him to apply his knowledge successfully. If in what had to be done mechanically technical rules for action could be given, it was not so when living processes had to be dealt with, for then there had to be exercised the power of judging of the value of the known as against the unknown. The voice of pure science would be for waiting for certain light; but suffering humanity had stronger claims, and could not wait; therefore was there necessity for a careful mental discipline. The medical profession stood almost alone in having to make the investigation of nature its prime duty. Others might labour in the same direction from a pure love of truth, or to relieve the tedium of life; but the medical student had and could not avoid the calls of duty to urge him to his work. He had to acquaint himself with the course of nature to the practical end of instituting a course of action under given circumstances. In the high object of medicine, however, did its greatest danger lie. The stimulus and the natural desire to act were mostly out of proportion to our knowledge and means for action. The motive to do something was but too apt to tempt to pretence of knowledge, which perverted the science and practice of medicine. The study of medicine was, said the lecturer, difficult to limit. The ancients called the human body the microcosm, and the outer world the macrocosm—in fact, one world within another. There were infinite and intimate relations between the two, and the whole art of medicine was to know and to act upon these relations, so as to favour what was favourable and exclude the contrary. The dogma that man's power and knowledge were limited by his observation of the course of nature could not be too plainly impressed upon the mind of the student of medicine. It was true we might and must believe and hope far beyond the boundaries thus prescribed, but belief and hope were but pioneers of knowledge, and where observation could lead the way there must be no halting in our steps to follow it. The expression "order of nature" indicated a rule which in one aspect was the most hard and inflexible. Amongst all the ever-changing phenomena of nature it asserted there was an unvarying oneness beneath. The variations in phenomena were but variations in combination or relations, but in the substratum itself there was no variation. The whole object of the science of medicine was based on this assumption. It was the whole purpose of our knowledge to find out and obviate what was inimical to our systems, and to discover and promote what was favourable. That, however, which would most occupy the time of the student in the hospital was the course of nature in disease. They would soon learn that diseases, like other natural facts, required no peculiar mode of study, although there was no doubt personal interest did much to hinder their due investigation and surround them with a mysteriousness which was not essentially belonging to them. Medicine had much advanced since she freed herself from the whole conception of diseases being independent entities, admitting of being labelled into orders and sub-orders; we were, however, not quite free from this, nor could definitions be avoided, although the aim of a good medical education was to teach the using of words and definitions but as a medium for arranging knowledge, not for confining it. After remarking upon the difficulties of attaining a good and correct mental training, and the various motives which should stimulate a medical man in the performances of his

duty, Sir W. Gull went on to say that there was sometimes an impression that medical men, being so largely occupied with the more fleeting phenomena of existence, and seeing more of the weakness than the strength of man, they were naturally led to ignore his higher nature and to regard him but as a very exquisite piece of material mechanism, and no more. He counselled them never to be satisfied with secondhand knowledge from books or lectures where it was within their power to get impressions from the objects themselves. The senses and the mind were active powers, which called for due objective exercises; medical study was a mere pretence without it. They did not come there as passive receptacles, to be filled with a complement of so-called knowledge which should fit them for asking questions. Happily, however, the times for this were changed. Examinations themselves were passing from the verbal to the objective stage, and nothing could supply the student with so practical a stimulus in the right direction as this change. But he would not say anything to lessen the value of lectures. Many of them were indispensable in demonstrating facts, the method of inquiry into them, and the result, while there was the teaching by personal influence, which was invaluable. As to books, the latest editions were for the most part to be read, as knowledge in every department was growing fast, and a book on physiology or the practice of medicine soon became obsolete, or ought to be so. Hospital reports, journals, and year books were invaluable. After referring to the importance of adding to our knowledge the use of instruments, the microscope, the thermometer, and the sphygmograph, &c., as aids to the senses, the lecturer went on to urge his hearers to study their profession in a liberal spirit, for though the centre of all their work was in man, they must gather up their knowledge from a very wide radius if they were to understand the problems he presented.

#### UNIVERSITY COLLEGE.

*Abstract of Introductory Lecture delivered October 1st.*

By F. T. ROBERTS, M.D., M.R.C.P., &c.

AFTER a few prefatory remarks, the lecturer drew attention to the remarkable progress which had taken place in the medical profession as a science and an art. Instead of considering this subject at any length, however, he thought it would be of more service to those for whom his remarks were intended if he were to discuss certain questions bearing upon the position of the profession, its internal organisation and external relations, and upon medical education and examination. Perhaps it did not matter much whether they as students were up in all the latest theories, or were acquainted with the most recent researches; but it made all the difference in the world whether they were turned out at the end of their career at all competent to practise their profession, and whether they had correct notions as to the position of their calling, its relation to great questions with which it was concerned, and their responsibility and duties in connection therewith. His conviction was that it did a great deal of mischief to allow those who intended to enter the profession to be under sentimental notions as to its nature and position. Essentially, and in the abstract, the "doctor's" calling was everything that ever had been, or could be, said in its praise; but at the same time, when realised in daily life, with its many difficulties and annoyances, with its dull and wearying daily routine, it might come to be regarded as not much, if at all, above the common level. What was worse, the conviction might be forced upon them that their calling was not quite so honourable as they were led to believe, while they could not avoid noticing that its external relations were extremely unsatisfactory in many points of view. . . . Things were certainly better than formerly, and their were signs of still greater improvement, but there was a vast deal still yet to be done in the way of reform. The general social status of the medical profession was not nearly what it might be, and even its most illustrious members could only rise to a comparatively inferior position of eminence. . . . In connection with the Army and Navy Medical Departments these were real grievances of a most serious character. During the last year this country had been engaged in a war, emphatically called a "doctor's war," and while honours had been deservedly showered down upon others, the doctors were left pretty well

out in the cold. The Poor-law Service was in many parts in a decidedly degraded position. Politically, they were simply nowhere, outstripped in the race by almost every other class of individuals, headed by the publican and so-called "working man." Their interests as a profession were not considered as deserving of much notice; even in such questions as those concerning sanitary matters, the opinions of men, who, from their official position, were expected to advise on these subjects, had been quietly ignored, or sometimes insolently repudiated.

The lecturer then went on to remark that it would do no harm if a considerable addition of the medical element were infused into the constitution of both Houses of Parliament, and pointed out the influence the medical profession ought to have in connection with all questions bearing upon the general health and well-being. In considering the causes to which the unsatisfactory state of the profession might be attributed, Dr. Roberts observed that first they were not a numerous or powerful body, and therefore Government cared little about them; secondly, the public did not treat them fairly or kindly—they would take every advantage of them; numbers of persons obtained advice at the hospitals who could well afford to pay, while, on the other hand, they would readily give large sums to some pretentious quack. With all the late increase in charitable contributions towards the hospitals, and the generosity of anonymous donors, who sadly, however, needed direction as to what hospitals should be the objects of their generosity, there was no corresponding development of charity and consideration towards the medical staffs of these institutions. He did not mean that they were not paid—a matter, however, not unworthy of notice—but they were not by any means always properly treated in other respects. People held very wrong ideas about their position, which were even encouraged by some gentlemen in their own profession. The lecturer then spoke about the difficulties and trials which physicians and surgeons to public institutions had to undergo, and in connection therewith alluded to the sad events of the past year, paying a tribute of respect to the memory of Murray, Phillips, Dickson, Fuller, Allen, Webb, Harries, Anstie, and others. Dr. Roberts then drew attention, thirdly, to the obstacles to true progress which existed within the profession itself. He urged the great importance of cordial co-operation and firm union in all their associations, from the most extensive to the most limited, as well as of individual effort, and of the highest exertion possible on the part of every member of the medical profession as to the nature and aims of their vocation.

Turning to consider medical education and examination, Dr. Roberts compared the past with the present state of things, and in speaking of former lecturers, paid a tribute to the memory of the late Professor Grant, and also spoke in feeling terms of Dr. Sharpey, who had recently resigned the Chair of Physiology. Discussing the present aspect of affairs, he alluded in strong terms to the very inefficient examinations still existing, and urged the necessity for a satisfactory curriculum of study, and satisfactory examinations for every part of the kingdom.

He then pointed out the changes and advances which had been recently made with regard to these matters, treating them under the heads of alterations affecting times subjects, and the methods of examination and instruction. Referring to examinations, he entered into a consideration of the causes of the numerous rejections of candidates, and dwelt at some length upon the question as to how far examiners, teachers, and students themselves were respectively responsible for the present unsatisfactory condition of things, as well as their proper relations to each other, and finally pleaded for their combination for the one great purpose of making the profession in reality the high and noble calling which it was in essence. For this end there were wanted examiners fully competent for the duties, and determined to perform them conscientiously and impartially, but yet with due courtesy and kindness—teachers not only possessing the ability, but eager to devote their best energies to the training of those committed to their charge, and students fully alive to their obligations and responsibilities.

After some words of exhortation, direction, and encouragement to the students present, Dr. Roberts concluded his address as follows:—

With all my heart, gentlemen, do I wish every one of you success in the truest sense of the word. But in order to win success you ought to deserve it. We sometimes see a man who has spent his time in idleness and frivolity, in after life, aided by favouring circumstances, get ahead of those who have been diligent and hard-working, and I confess that to

me the sight is not an agreeable one. My sincere desire and hope is that those who have earned success here may achieve it hereafter, though there is no reason whatever why you should not every one deserve it, and remember that a successful life need not be a brilliant or a long one. There are many obscure village practitioners who in reality are far more successful than some who seem to float on the highest wave of worldly prosperity; and there are tablets in this College, erected to the memory of those, who, having scarcely emerged from their student life, accomplished more in their brief career, and were more truly successful than most men who reach their three-score years and ten. To such men would I point you as examples. Follow in their footsteps, make your mark for good in the sphere in which your lot is cast, whether it be large or small. Let your life be not a dark blot or a hideous caricature, but a finished picture, grand and beautiful and attractive to look upon, which will be the admiration of future ages. You may even now, if you choose, be sketching the outline of that picture; and hereafter, if your lives are spared, you can fill it in and make it perfect and complete by devoting yourselves earnestly and faithfully to your duties, whatever they may be, and by taking your part in the conflict with disease and death, in the alleviation of pain, distress, and misery, and in the endeavour to sweep away many of the direst ills which now afflict humanity.

#### KING'S COLLEGE.

*Abstract of Introductory Lecture delivered October 1st.*

By DAVID FERRIER, M.D., Edin.

THE lecturer, after welcoming the students, old and new, remarked that the study of medicine was one which presented peculiar attractions, dealing as it does with subjects of universal curiosity and interest, besides being of a continually progressive nature, and offering practically unlimited fields for new and original research. The important position and great influence which the medical profession at present possessed entailed all the graver responsibilities on those who would worthily fit themselves for their professional duties. In the short time allotted to medical study almost the whole circle of the sciences had to be gone through. The impossibility of doing all well had led to serious doubts on the part of those whose opinion on medical education was of the greatest weight, whether some of the subjects at present included in the medical curriculum should not be cut out, so as to allow of greater concentration on the more purely practical subjects. Thus botany and natural history, which can hardly be considered necessary to enable a man to recognise and treat disease, were proposed to be excluded. The lecturer admitted that, so far as purely practical work was concerned, these, as well as some other subjects which had to be studied, were not absolutely essential, but he thought there was danger in fostering the natural narrowing tendency of all purely professional pursuits, to the exclusion of that breadth of scientific culture which had always been the boast of the medical profession, and to which, as much as to its mere handicraft skill, it owed its recent progress and present position. The disproportion between the proficiency achieved and the time spent in studying these accessory sciences he thought was much exaggerated, and pointed out various relations in which even only a general acquaintance with these subjects was of the utmost practical importance. While some branches of medical study might, without disparagement to them, be admitted to be only of secondary importance, there were others which claimed especial attention as constituting the very foundation of all rational appreciation and treatment of disease. Prominent among these stood physiology, the claims of which he desired to urge, not so much in reference to its position as the key to all scientific knowledge of the nature of disease, which all admitted, but to the less generally recognised important bearing it had on therapeutics or the treatment of disease. The tendency of modern medicine was to place therapeutics on a rational and scientific basis, in contradistinction to its present position, that of almost pure empiricism.

Notwithstanding the thousands of years during which medicine had been cultivated, and the numerous scientific discoveries which helped to constitute the body of medical science, the term "science" was scarcely applicable to that department of it which related to the treatment of disease by means of remedies. Nor would it be till we had succeeded in establishing more definite and precise

efficacy and mode of action of drugs. There was hope that, by the study of experimental pathology and experimental pharmacology, which were only branches of physiological investigation, we might realise a science of therapeutics. The method here indicated as that which rational medicine ought to pursue, was, however, opposed by many who regarded as misleading all attempts to rationalise therapeutics by reasonings founded on physiological experimentation on the lower animals, and who looked upon pure clinical research as the only road to trustworthy results. In support of this position many arguments were advanced; amongst others the mischievous and pernicious errors which the history of medicine showed to have been the consequence of neglecting clinical observation to indulge in theoretical speculation and physiological theories regarding disease and its treatment.

The lecturer proceeded to discuss how far a parallel could be drawn between the early efforts of medical philosophers and the methods inculcated by the physiological physicians of the present day. He gave a short sketch of the development of therapeutics and of the history of the chief revolutions of medical science, and showed that these truly demonstrated the pernicious consequences of medical practice directed by pathological and physiological theories founded on abstract speculation and not on "the contemplation of nature;" and that though, through many errors, some valuable facts have been established, of which we reap the benefit, yet they had often been arrived at by a reckless and hazardous system of experimentation on human beings, which had cost many lives, and from which multitudes had only escaped with debilitated and impaired constitutions. There was, however, little or no analogy between the physiology and pathology of the past and that of the present day, which was founded on rigid experiment conducted according to exact and precise method, and which discouraged all attempts to solve difficulties by mere abstract speculation. To physiological investigation of this character we owe most of our recent progress in accurate knowledge of the intimate nature of diseased conditions. But with all this advance in scientific knowledge of disease and its diagnosis, we are, as far as regards treatment, little better than empirics, unable to give any other reason for our practice than that it has been found beneficial by those who have preceded us. And yet we observe how eagerly everyone, even the most rigid empiric, advances some theory as to the physiological action of the drug he prescribes, and seeks to support his treatment on some rational physiological or pathological foundation. The backward state of therapeutics naturally points to some peculiar difficulties inherent in the subject, or to some imperfection in the method of its cultivation. That the study of therapeutics presents difficulties not encountered in the exact sciences is a fact, the truth of which is easily demonstrated, but which is too often forgotten in the satires levelled at the uncertainty of medicine. The problems to be solved, incapable of being stated with all their data, cannot be referred to exact calculation. Man in a state of health, and much more so in a state of disease, presents such a complex assemblage of phenomena that the discovery of causes by mere clinical observation cannot be but slow and always uncertain. The uncomplicated natural history of disease is difficult to ascertain. Diseases vary and have special features imparted to them by the individuality of the patient; the mental emotions play an important part in the causation, progress, and cure of the disease, so that to allow for each and all of these, as well as many others, to estimate the exact proportion which each has had in the production of the phenomena observed during the progress of treatment, to discount deficiencies and imperfections on the part of the observer, to eliminate all collateral circumstances of personal or other interest in the results recorded, constitute a mass of difficulty which the experience of countless generations has not yet been able to resolve. For if we are to believe the recorded results of therapeutic research conducted under such conditions, we shall be obliged to admit that the same diseases have been equally well cured by the most sanguinary and heroic, and by the most mild and expectant treatment; by remedies founded on the rational pathology of the disease, by infinitesimal parts of nothing, and by peppermint-water. With such conflicting evidence as to the value of therapeutics, need we wonder that "doctors differ" has become a by-word, and that many thinking men, despairing of certainty, have rushed into inveterate scepticism as to the value of medicine in general, and have assumed the position of benevolent neutrality, declining to interfere between the patient and the *vis medicatrix naturæ*.

It is in the nature of the subject, pursued as it has been, that such things should exist; but that we should rest and be thankful, and accept as ultimate facts conditions which may be capable of being overcome, is hardly in consistence with the general spirit of scientific inquiry. We must recognise the necessity of reducing the problem to more limited dimensions, and of bringing the conditions of the investigation under our control, by applying to therapeutics the same exact system of experimentation which has done so much to advance the sciences of physiology and pathology. To experiment on human beings, after the manner of old, is contrary to the genius of the profession; and the progress of research pointed to experimentation on the lower animals as the only means of arriving at that knowledge of the exact action of drugs, which was necessary before a rational treatment could be linked on to a rational pathology. Against this method there were numerous objections, some of which were worthy of serious consideration. It is urged, with some show of reason, that we are not justified in transferring to human beings the results of pharmacological investigation on the lower animals, on account of the differences observed to exist: many drugs which had a powerful action on man exerting little or no influence on animals, and *vice versa*. These facts were acknowledged, several individual instances were discussed, but these anomalies were not to be regarded as ultimate facts any more than the so-called idiosyncrasies observable among patients. Physiological research had already succeeded in explaining several of these peculiarities, and though all difficulties had not been cleared up, the progress they had made justified the hope that they would all ultimately be removed. In the cases where animals and men were affected in all outward respects in a similar manner—and these only were argued from—unless physiology were a fallacy, and biology a myth, the establishment of the action of the drug on one of the lower animals was applicable to man.

Hasty generalisation was greatly to be deprecated; and clinical observation, instead of being neglected by scientific therapeutists, required to be, if possible, more thorough, more accurate, and more minute. The differences occasionally arising between "practical men" and experimentalists showed the necessity that existed for a more thorough union of the physiologist with the physician. The results of trustworthy experience were by no means to be disregarded by the pharmacologist. Often the most successful practice was united with the most erroneous theory as to the action of medicine; but though the theory was proved on investigation to be false, it by no means followed that the treatment should be abandoned. It was more philosophical to endeavour to ascertain the real foundation of its proved usefulness.

It was sometimes assumed that pharmacological investigation had added but little to our *materia medica* as compared with the numerous valuable remedies which had been discovered and established by the method of empiricism, which the rational physician would so much decry. No doubt many of our most highly prized drugs were the result of lucky accident, but many more were the result of hazardous experiments on patients. We could not always wait for lucky accidents, nor were we justified in experimenting on those who sought our aid. Yet it could not be said that therapeutists had reached perfection—witness such opprobria of medicine as cholera, zymotic disease, hydrophobia, &c., before which we had to confess ourselves almost powerless. Physiological research had established many valuable remedies—witness the anæsthetics, hydrate of chloral, nitrate of amyl, calabar bean, and many others—besides extending the use of many already known; while the ascertained facts of physiological antagonism had enabled us to counteract successfully many formerly invariably fatal poisons. Results such as these justified the hope that physiological research would one day clear away the many opprobria of practical medicine. Yet there had been some danger that the progress of scientific medicine should be discouraged by the outcry of a certain class against what they called the inhumanity and cruelty of physiological investigators. The lecturer had no intention of making an *apologia vivisectionis*, for he despaired of convincing its opponents of its morality, seeing it only rested on a principle which was acted on, and necessarily, in almost every relation of life. But he strongly objected to the conduct of those who, professing to have such delicate sensibilities, pryed into what was not written for them, merely for the purpose of misrepresentation and vilifying in the public prints those who might be actuated by as high principles of humanity as themselves. To another numerous class a proverb was applicable, which



defined certain persons as unfit to see things half done—viz., those who could appreciate the benefits arising from certain physiological experiments, but were unable to understand the bearing or practical benefits to be derived from others of a similar nature, and would therefore oppose them as wrong and unnecessary. To such vexatious opposition it was to be hoped there would soon be an end, but apparently with little chance of immediate realisation in such a curious age of general enlightenment and holy pilgrimages. The lecturer concluded with the hope that he might have excited some degree of enthusiasm for the cultivation of rational medicine.

### MIDDLESEX HOSPITAL.

*Abstract of Introductory Lecture delivered October 1st.*

By MR. ANDREW CLARK, F.R.C.S.

HAVING referred to the 1st of October as a day for which medical men had a special regard, the lecturer spoke of the army and navy, and hoped the Government would not permit an idea to gain ground that these services were not sufficiently good openings for young surgeons; of this there appeared to be at present some danger. The importance of preventive medicine was spoken of, and all were urged to study it, even though they did not make public health their speciality; and in speaking of scientific study as a branch of the medical profession, the lecturer pointed out that though our knowledge of pathology and means of diagnosis had of late years much improved, still we were very backward in therapeutics. In acquiring scientific knowledge they must not forget, in the exercise of their duties, charity and true love for their fellow-men. Special stress was laid on this word charity, because the lecturer thought there was a want of charitable feeling existing among medical men themselves, and it was a word all should consider well in its many and varied meanings.

He went on to say that they had two great aims before them: to obtain a legal qualification, and to acquire such a knowledge of their profession as would give them a self-consciousness that they were able to combat any emergency. The two ought to go together, and he hoped that when the conjoint scheme came into operation, the possession of a diploma would be a guarantee of thorough efficiency. He then went through the various subjects of study, and in speaking of anatomy said the only place to learn it was in the dissecting-room, where three or four hours a day should be spent. He thought a student could acquire a sufficient knowledge of physiology without resorting to vivisection, which should only be practised for the purpose of making discoveries, and not for demonstrating known facts.

The lecturer said hospital work should be begun at once, and advised the students to make up their minds to devote a short portion of every day to it, although, at the same time, if any could afford a year before registering for preliminary scientific studies, so much the better.

They were urged to help one another in their work, and not to be afraid to explain to a fellow-student what he was ignorant of for fear of losing a prize. This was one of the objections to class prize-giving, and a very reasonable one; but if they acted on the word "charity," and recollected there was one prize—the acquirement of knowledge—open to all, it would not occur.

Mr. Clark pointed out that no man could be a good specialist without a fair knowledge of disease generally; and every general practitioner should make himself so far acquainted with special diseases that he would not mistake glaucoma for simple conjunctivitis, or pronounce a case of throat-deafness incurable.

The students were advised to hold as many hospital appointments as they were able to obtain, and to begin at once if they had seen any practice, or in six months if they had not, as out-patient dressers; and in fulfilling the duties of those offices they were to recollect that they had the good of their patients as well as their own good to consider. Hospitals were built for patients, and students were permitted to make use of those patients for their instruction for the benefit of others; but they must be treated with every kindness and consideration, and on no account subjected to unnecessary examination if it either prolonged their illness or endangered their life.

In speaking of the subject of cramming for examinations, the lecturer said he feared it was very much in vogue at the present day, and even necessary for some examinations. It was not, however, necessary for the ordinary medical

examinations, and those whose knowledge was acquired by its aid could not be efficient practitioners. Frequent examinations were of great service, and opportunities were offered in the class examinations held every six weeks, at which the students should not fail to be present.

Mr. Clark spoke of the loss the profession and hospital had sustained in the death of Dr. John Murray, whose bust had just been placed in the Museum, as a testimony of the respect in which he was held by his friends. A scholarship had also been founded in the University of Aberdeen, which, under certain conditions, was open to students of the Middlesex Hospital.

In concluding, the lecturer said we should be encouraged to persevere when we think of the many great men who have adorned our profession, mentioning particularly Sir Charles Bell, who had been surgeon to the Middlesex Hospital for seventy-two years; and we know we have the same opportunity as they had.

### ST. GEORGE'S HOSPITAL.

*Abstract of Introductory Lecture delivered October 1st.*

By DR. W. HOWSHIP DICKINSON, Physician to the Hospital.

THE lecturer opened with an allusion to St. George, contrasting his ancient calling as a soldier with his present position as patron to a hospital, wherein he wages no war but with disease, his enemy that crowned shadow whom mortals fear, the frontier in dispute that of the dark monarchy from whence no ambassador returns.

Pausing for an instant on the importance of medicine in reference to the amount of preventable disease, the unnecessary deaths in England alone being equal in one generation to the population of London, or in one week to as many as were put to death in France during the Reign of Terror, the lecturer said—"Sanitas sanitalum, omnia sanitas" may well be accepted, in default of a better, as the motto of a political party; and I think it will be well for the State, and but duly regardful of a waste of life which is only to be paralleled, and that but for a short time, by war on the largest scale and in its most sanguineous shape, when the profession to which we belong is represented in the councils of the nation as weightily as can be insured by official place and conferred dignity.

Proceeding to the present state of medicine in relation to the allied sciences, the antiquity of medicine was contrasted with the modern origin of the sciences with which its advance is connected—old tradition and new knowledge, each with their claims to consideration: medicine, in one view, rich with the spoils of time; in the other, encumbered with some of its dust.

Ancient and mediæval medicine were touched upon, and the mediæval physician sketched as a visionary, with the astronomical globe ready to his hand, and his portrait bordered with the signs of the zodiac, some of whose theories—the doctrine of signatures and the humoral pathology—still influence practice, the latter especially in the absurdities of counter-irritation, some of which were described as more worthy of the genius of Red Indians than of the benevolent intent of one Christian to another.

Turning now to later modes of thought, the great advances of chemistry during the last hundred years were referred to, with the medical improvements consequent thereupon, culminating in anæsthesia by inhalation. Pathology was similarly dealt with, together with the recent origin of the achromatic microscope, and the new views thence derived as to the nature of disease; pathology, like the age, becoming materialist; functional or unsubstantial diseases flitting before the microscope like ghosts at sunrise. The lowest forms of organic life were referred to in regard to the large influence, strangely disproportioned to their minuteness, which they exert as causes of disease upon the fortunes of humanity.

Declining to enter upon the subject of spontaneous generation, but professing himself willing, if necessary, to adopt the view of the Roman Commander with regard to the animals of the Nile—"Your serpent of Egypt is bred now of your mud by the operation of your sun, so is your crocodile,"—the subject of modern advance was completed by mention of the instruments dealing with light and sound which have advanced the art of diagnosis.

Thus, tracing the recent progress in medicine, directly or indirectly, to knowledge extraneous to itself,—seeing for how long in the absence of the sciences it remained stagnant, or



with only fitful progress; how fanciful theories led to erroneous practice which observation alone was inadequate to correct; and how sharing in the development of science it has made greater progress during the last hundred years than since the epoch of Galen, the physician of the early Roman Empire,—to natural science was awarded the first place among the agents of medical progress. But it was not to be forgotten that science, however advancing, was necessarily imperfect; it might mislead as well as lead aright, and prove on occasion, not a guiding star, but an *ignis fatuus*. Hence suggestions thence derived must be scrutinised in their application with suspicious care, ever adjusting, correcting, and, where necessary, renouncing the indications of principle according to the teaching of observed results.

Giving due place to scientific or speculative thought on the one hand, and to experience on the other, the first was the motive power, the second the controlling agent; the first the steed, the second the bridle. With only the one we should be sure to go astray; with only the other we should for ever stand still, or at best advance in a very halting and footsore style.

Theory was insisted on as an idea of purpose inseparable from human action; and practical men, who affect to be superior to theory, stigmatised as no less theoretical than their neighbours, though influenced not by the principles of ripening knowledge, but by the exploded fallacies of the past. "A practical man," according to the great leader, whom, as a conservative, practical men should respect, "is a man who practises the errors of his predecessors."

No therapeutical suggestions should be discarded as too chemical; no pathological inquiry, however minute, as unpractical; no appliances in aid of diagnosis as new-fangled or superfine: observation should be trusted, tradition distrusted.

Students were urged to study the nature and course of disease, so as to be able to interfere with it when necessary and possible, and to be content to leave it alone when, as often happens, the disease of itself tends to health, or, in other instances, is outside the scope of our remedies.

"Let us," said the lecturer in conclusion, "be no mere distributors of salves and potions—for everything its remedy, and half the remedies delusions; but while we practise the art of medicine, study the science of disease, and accept promise of unbroken progress and increasing utility in association with that knowledge of universal nature, ever widening and deepening in all her modes and results, which is the glory of the age and the hope of the future."

#### ST. THOMAS'S HOSPITAL.

*Abstract of Introductory Address delivered October 1st.*

By W. MACCORMAC, F.R.C.S.I., F.R.C.S.E., &c.

AFTER some preliminary remarks, Mr. MacCormac dwelt on the fact that the student must not depend exclusively for instruction on others, but must also, and most patiently, learn to instruct himself. To do this efficiently he should have received a well-grounded preliminary culture. The lecturer pointed out that without such previous training a man is liable to be distanced in the race of life, that the student who finds himself required to fill up the deficiencies of a defective education, as well as to master the intricate details and manifold bearings of a great profession, will prove too heavily weighted either to do justice to himself or the calling he has chosen. Mr. MacCormac combats the idea that in respect of the task before him the termination of the student's career will see the end of his exertions. He shows that excellence is not thus to be compassed, but must be aimed at, struggled for, without end. He points out that effort itself confers a sure reward, a disciplined intelligence, and a well-directed will. He adverts to the relations of the teacher with the taught, the genial bearing of the one influencing the apt intelligence of the other—that there is between them a community of purpose which, rightly exercised, will lead to the best results, and that the student has no better friend or confidant than his teacher.

The long career of the ancient foundation of St. Thomas's affords Mr. MacCormac the opportunity of giving some interesting details of the position of surgery and surgeons in bygone days—that there was specialism, and of a very bad form, then as now. He points to some of the extravagances that were then committed, and the absurd length to which the belief in certain remedies was carried; quoting the somewhat amusing instance of a physician who, having refused to be bled in his extremity, was snathematized with

the depletion which it was hoped he might have to undergo in a different world. The lecturer forcibly dwells, however, on the debt of gratitude we owe to the worthies of the past, and to the immense difficulties which they not only encountered but overcame, and urges us

"Ever to be mindful of the Faithful Dead."

Mr. MacCormac is justly appreciative of the enormous contributions made to modern science on the part of Continental practitioners, and dwells upon the necessity of an acquaintance with the languages in which those labours are recorded.

"There are," he says, "workers everywhere; but how are we to benefit by their work unless we understand their language? We may, indeed, avail ourselves of translations, but these at best are but diluted transcripts, bereft of all the life and verve of the original, and mostly come too late to prove of much advantage. We are, in fact, somewhat prone to wrap ourselves up in our insularity, if I may adopt the expression. Insularity may be an admirable thing geographically speaking, but in science it is too often fatal." The long list of names—too long to enumerate—of German, French, American, and English surgeons to whom surgery and the world are indebted is securely registered in the record of their fame.

The great efforts which have been made to mitigate the horrors of modern warfare are spoken of in the pages of Mr. MacCormac's address; and he enlarges on those efforts as one may who has witnessed something of the evils they are intended to assuage. He shows how much our times are in advance of the past, but he also shows how even the immense resources of modern military surgery find themselves unequal to cope with the horrors of such modern battle-fields as those of Mars la Tour and Gravelotte, where 42,000 men fell dead or wounded on the German side alone.

In conclusion, Mr. MacCormac urges the student to cultivate, at once as a solace and recreation, some pursuit not immediately bearing upon his profession. He points out that of many within reach none is perhaps better deserving attention than the cultivation of general literature, which, as Sir John Herschel has said, places its possessor in contact with the best society of every period of history, makes him a denizen of all nations, a contemporary of all ages.

#### CHARING CROSS HOSPITAL.

*Abstract of Introductory Address delivered October 1st.*

By R. DOUGLAS POWELL, M.D., M.R.C.P.

AFTER some preliminary remarks, Dr. Powell observed that it was, perhaps, only on hearing the usual but none the less sincere congratulations upon the nobleness of the profession they had chosen, which were always offered to them upon these occasions, that students first questioned themselves, curiously, as to how they came to choose the medical profession; and the question, What is the use of it? might to them at first appear a little staggering. For, merely to say that the profession existed; that, of its superabundance, civilisation had yielded a fund for the lopping of overgrowths, the repair of degeneration, the preservation of buds and cuttings; and that thus doctors, like cooks and confectioners, were but the results and servants of luxury—was not a sufficiently encouraging answer to urge them onward. Nor, although a contingent pleasure, was the occasional sense of gratification that the immediate object of their lives was the relief of pain and misery, sufficient to justify to them their profession as a great one. It was too fitful and fleeting to sustain them to any high purpose, and was rather an element of over-anxiety and weakness if it held too high a place in the mind of the physician. On looking higher still for a worthier motive, they were met by the protest of some who would thrust them back again amongst the cooks and confectioners—that, by ameliorating the conditions of life, they preserved the feeble members of the human race at the expense of the strong, levelling down the whole human constitution by diluting the life of the strong with the lesser vitality of the feeble. He need not pause there gravely to contend against the futile notion that it would be possible for us to interfere with such laws of nature as determine the survival of the strongest. Such laws could not, however, be construed to mean that life was the exclusive right of those who had

most of it. The laws of Nature, "bound fast in fate," were not to be changed by human will; but it seemed obvious enough that by improving the general conditions of life we acted with those laws, and upheld, if he might so say, rather than let down, the vitality of the race; for every evil condition that would extinguish a weak life, would damage, if not disable, a strong one. Proceeding to regard the matter from another aspect, Dr. Powell contended that in the intellect or mind of man, we found a new force having, within wide limits, the mastery over other forces, and, unlike them, capable of continued growth from generation to generation, and that the true aim of civilisation—a great scheme of Nature in which we but took our part—was towards the attainment of a higher development of the intellectual and moral elements of our being, to the crowing with God-like wisdom and grace that human form which, in muscle, and bone, and nerve, was as perfect centuries ago as now. He doubted whether in this direction any man had ever lived whose life had not contributed directly or reflexly to human advancement, the weak being the hostages of the strong, to bind them to industry, to lessen violence and strife amongst them, and to humanise them. The ascertainment and maintenance, then, of the laws of life and health, mental and physical, under all the conditions of human existence, was a worthy and sufficient *raison d'être* for ours as a profession, being, in other words, the maintenance of the best bodily or material conditions for continued intellectual growth.

Dr. Powell next urged upon his hearers the importance of early establishing for themselves a good tradition to which they would find it comparatively easy to remain loyal. He thought astuteness and decision of mind, the habit of thinking out everything to a conclusion, so attractive and commanding in the man, was particularly valuable in the professional man. He dwelt on the importance of note-taking and personal examination into everything as the best means of gaining early real experience, the safest antidote in practice to that indecision of mind against which he had already spoken. He warned senior students particularly against neglecting any branch of medical study; a man could only legitimately become a specialist after having thoroughly acquainted himself with the principles of medicine and surgery as exemplified in their every branch and department. Most of them would practise in every branch. Mentioning especially the diseases of women and children as being branches of study often somewhat neglected by students, he observed that the reflex phenomena of disease which make up a certain portion of the symptoms of all diseases, were often most clearly and simply presented to us for study in these departments, and that a good knowledge of children's diseases was the very alphabet of medicine, teaching us the resources of nature, and how best to aid them by rest, diet, nursing, and medicine.

Dr. Powell concluded his address as follows: Some noble experiments were being tried in establishing provident dispensaries on true self-supporting business principles, in which charity took no part. It would, however, take time for them to become rooted institutions, and meanwhile he would advise every man commencing practice to make his surgery a provident dispensary, where a payment qualification during health might enable the poor man to seek advice and treatment during sickness. They would thus gain opportunities of continuing the study of their profession and ensuring future reputation, and this in the true interest of their poor patients rather than at the expense of their moral integrity.

#### WESTMINSTER HOSPITAL.

*Abstract of Introductory Address delivered October 1st.*

By R. D. POTTER, M.D., M.R.C.P.

AFTER a few words of welcome to the students, and alluding to the sad loss sustained by the school in the deaths of Dr. Frederic Bird and Dr. Anstie, both cut off in the midst of active work and in the full vigour of professional life, the lecturer went on to speak of the profession of medicine, and to congratulate those who had embraced it on their choice of so noble a life. But he told them that they must be certain of the truth of their choice, as they would find it a hardworking profession, success difficult of attainment, State rewards but few, and the chances of making a fortune infinitesimal. He continued: "To be honoured professionally, however, is open to you all, and it is rare that honest work remains unrewarded

in this way. It is a source of pride to us that of the four seats of the Censors' Board of the College of Physicians two are at present held by the senior members of the staff, Dr. Basham and Dr. Fincham." After reminding his hearers that they are to be medical students, he went on to speak with regret of the abolition of the old-fashioned apprenticeship, believing that a year or so occupied in this way would be of great advantage. The seeing a great deal of practice, and especially the minor and petty cases, which make up, to a large extent, the bulk of every day work; also the minor diseases of children, scarcely ever seen in a general hospital; the handling of drugs and the art of prescribing, never successfully learnt in any other way; the traditions and etiquette of the profession; and last, not least, the opportunity it affords the young man to ascertain whether he likes or dislikes the profession of his choice, as he sees, in addition to the purely medical point of view, the kind of daily life that he must expect if he goes on with it. A good deal of elementary knowledge can also be gained during this year of botany, chemistry, and some acquaintance with the bones. Turning for the moment to address especially the students making their first appearance in the theatre, he insisted strongly on the necessity for order in their medical studies, and especially at first to devote themselves mainly to anatomy and the dissecting-room, afterwards taking up physiology, and especially to work well in the new physiological laboratory, where they would have advantages of experimental research such as were not enjoyed by their predecessors in the school.

Speaking on the subject of midwifery, he dwelt on its importance as the keystone to practice, and laid great stress on the necessity of a sound practical knowledge of the subject, and the attendance on as many cases of labour as possible. He spoke also of the impossibility of attempting to teach the diseases of women and children as part of a three months' course of midwifery. The importance of taking notes in the class-rooms and also in the wards was strongly insisted upon. The advantages of Westminster Hospital, as *par excellence* a small school, were then dwelt upon, "for though a student of robust health, commanding talents, and great industry, might push his way to the front in a large school, it is far otherwise with many others. In a small school, where there is no crowding, everyone has his chance, is brought more closely into contact with his teachers, in the wards he sees all the cases without having to fight for the privilege, and in the latter years of his student life is able to hold the various appointments, and have the direct charge of patients."

## Hospital Reports.

### ON A REMARKABLE CASE OF TRISMUS.

By RAWDON MACNAMARA, M.D. (Hon. Causá) Univ. Dub.,  
Fellow, Member of Council, Professor of Materia Medica, and Ex-President R.C.S.I., Surgeon to the Meath Hospital, &c.

I FEEL that but little apology is due for my thus bringing under the notice of my professional brethren the principal features of the following case, which I look upon as the most remarkable one that hitherto I have met with in the practice of my profession.

E. L., a married woman, æt. 52, was admitted into the Meath Hospital under my care on the 24th day of July in the present year. The symptoms under which she laboured were as follows: Her jaws were firmly locked together, and could not be separated either voluntarily or by any amount of force which I considered justifiable to use, even to the extent of admitting the introduction of a spatula, and this state of rigidity was equally well pronounced both whilst the patient was asleep or awake. In the situation of the right temporo-maxillary articulation was an immovable tumour of the size of a pigeon's egg, giving, on digital examination, a cheesy-like sensation; the sternal attachment of the right sterno-cleido-mastoid muscle was remarkably thickened, fully six times as large as that on the left side, communicating to the finger the same cheesy-like sensation; whilst under the right clavicle were two tumours apparently similar in character to that

over the temporo-maxillary articulation, but much smaller in size, not being larger than a hazel-nut, and under the left clavicle were two others of similar character, but still smaller in size, not being larger than a marrowfat pea. Upon the surface of the chest the cutaneous veins were visibly enlarged. Her pulse was slightly accelerated; but no difference in volume was observable at the wrists on either side. Her voice was remarkably hoarse, and the act of inspiration was accomplished with very great apparent difficulty, and accompanied with a loud crowing noise, resembling in character but far exceeding in intensity that heard in croup or in the very worst forms of whooping-cough, and perhaps the most remarkable feature in this extraordinary case was that the sounder asleep was this poor creature the louder would be the noise accompanying the act of inspiration, so much so as to disturb the patients at night, not only in the ward in which she slept, but also those in the adjoining wards, which noise was also perfectly audible outside the walls of the hospital even with the doors shut. With all this she would sleep profoundly, but never awoke from her sleep refreshed. This noise was so overpowering as entirely to prevent even an approach to anything like a satisfactory stethoscopic examination of her chest, although such was most kindly and most perseveringly essayed for me by my venerated colleague Dr. Stokes, who pronounced the case to be, in his experience, unique. In her general appearance she appeared to be slightly emaciated; but in all other respects save those mentioned she seemed to be in a fair state of health. She had little, if any, cough. The history which we could collect from herself of her case was briefly as follows: About Christmas last she remarked that she was getting hoarse, and fancying that she had caught cold she procured some cough-bottles, which, however, did not do her the slightest good. Shortly afterwards she remarked the tumour seated over the temporo-maxillary articulation, at first small in size, which from that time increased steadily to its present condition. Early in January she experienced difficulty in opening her mouth, and in February the jaws closed tightly, as they are at present, since when she has been obliged to feed herself by coaxing crumbs of bread through an interstice left by the loss of one of her front teeth when a child. There is not the slightest evidence of her ever having suffered from syphilis, all the evidence tending in the contrary direction.

The diagnosis in this case was involved in obscurity. That the temporo-maxillary tumour might have something to say to the production of the trismus could not be gained. Still, I had frequently seen tumours in this situation larger in size, and apparently of a graver character, where, although some difficulty would be experienced in opening the mouth, yet there never was anything approaching the completely lock-jawed condition this poor creature presented. Again, what was the cause of the extremely exaggerated inspiratory murmur, and the diagnosis being so obscure, naturally it was still more difficult to decide upon the line of treatment most likely to relieve the symptoms. After mature consideration the conviction forced itself upon my mind that the "fons et origo mali" lay deep down in the thoracic region—that a tumour similar in character to those to be observed externally had formed internally, and by pressure on the nerves had set up reflex irritation, whence all the symptoms. In a communication such as this, it would be, in my opinion, out of place to enter into a physiological discussion as to the nature and situation of the pathological changes which might result in the production of these phenomena. On a future occasion it may be permitted me to do so; but at present I must content myself with placing on record facts as they occurred. With this conviction upon my mind, I discarded the idea of tracheotomy, which for a time I had entertained, and determined on making energetic efforts to procure the absorption of the tumour, if such there was. With this object in view I placed her on mercurial inunction, until the gums became tender. No difficulty was experienced in producing this result, and then I placed her on large doses of iodide

and of bromide of potassium. After a few weeks of such treatment all the symptoms commenced to ameliorate, the tumours which were visible diminished in size until at last they disappeared. She is now able to open her mouth, to masticate food (clops, steaks, &c.), sleeps tranquilly, and to all outward appearances seems to be perfectly cured. It should be mentioned, as being to some extent supplementary to the proof afforded, by the success attending the treatment, of the probable correctness of the diagnosis; that, when the character of the respiration admitted of a satisfactory examination of the chest, I found in the track of the arch of the aorta, on percussion, dulness; on auscultation, a well-marked murmur, which murmur, however, was not at all detectable over the cardiac region. Both of these signs are so diminishing in intensity as now to be scarcely, if at all, recognisable. In this statement I believe that I shall be fully supported by my friend and relation distinguished Professor Brown, of the Galway College, who kindly examined the case for me this day (October 2nd).

During her treatment she used about six ounces of the bromide and five of the iodide of potassium. The mercury was not employed through the existence of suspicion on my part of any syphilitic complication in the case, but because experience has taught me its value when thus used as a preliminary in developing the absorbi-facient properties of the iodides, and with this object in view I also occasionally had recourse to the local abstraction of blood by half-a-dozen leeches at a time.

During the treatment of this case I had reason to feel indebted to my resident pupils, Mr. R. M. Blake, one of my apprentices, and Mr. Clibborn, for the zeal and attention with which they carried out my directions, and to the former of these gentlemen I am also additionally indebted for the accurate notes from which I have been thus enabled to summarise this most instructive and interesting case.

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## The Medical Press and Circular.

"SALUS POPULI SUPREMA LEX."

WEDNESDAY, OCTOBER 7, 1874.

### THE FIRST OF OCTOBER.

THE Introductory Lectures this year were successful. Such is the general verdict of professional society in London; and we may add that some of them were of unusual interest. It is unnecessary to enter on a defence of the custom of inaugurating the session in the time-honoured way, although a medical journal has thought fit to depreciate it by a feeble attempt at cynicism. That journal has, however, published two of the lectures *in extenso*, and given abstracts of the others. If they were so useless, why publish them? Our own views on the

matter have been previously stated, so that it is unnecessary to repeat them.

Guy's was a scene of excitement on the 1st of October. Not only Guy's men, but many others would naturally desire to hear a man who has attained the position occupied by Sir William Gull, and accordingly a larger room had to be sought outside the hospital. Many will have rejoiced to hear Sir William Gull say he looked back with pleasure to the time when he had no world but Guy's; and it must have stimulated his younger hearers to hear him confess that he traced all his success to work in its wards. Nor was his kindly word for *Guy's Hospital Gazette* less likely to be appreciated as a proof of lively interest in all that relates to his *alma mater*.

Considering, too, the general impression as to the sceptical nature of his mind, it would be a relief to many to hear, after the able exposition of the order of nature, of man's subjection thereto, and of the reasons for preparing themselves for the duties of their profession, that the lecturer added this advice: "Supplement these by the highest, your duty to the Highest, Who alone can satisfy the wants of your nature, and with Whom a faithful study of your profession cannot but make you better acquainted."

At King's College Professor Ferrier inculcated the study of rational medicine, and laid much stress on experimental physiology, of which he is so able a cultivator, and he evidently looks for great advances in our knowledge of therapeutics. His subject led him to speak of vivisection, and he spoke decidedly in a manner that would displease its opponents, but he did not assert that it should be permitted except for truly scientific investigation, and so we presume by qualified experimenters.

At University College Dr. Roberts discussed the position of the profession, its organisation and external relations, medical education and examination. In his view, medical politics are evidently important, and we could wish, now that introductory lectures have become of interest to the public, that they were more generally made the media for such remarks.

At St. Thomas's Hospital Mr. MacCormac gave the results of his investigation into the history of surgery during the long time the hospital has existed, and interspersed sketches of former surgeons that are full of interest.

Mr. Andrew Clark alluded to the late Dr. Murray, and other Middlesex Hospital worthies, as examples for those to whom he spoke, in a very able lecture full of sound advice.

Dr. Fenwick's address at the London Hospital we print in full, and it speaks for itself as the sound advice of a clinical teacher who is still an earnest student.

Dr. Dickinson's, at St. George's, resembles this in some points, and the abstract we give of it will be read with interest. So, indeed, will all.

Dr. Powell, at Charing Cross, alluded to specialities, and stated the exact truth when he observed that "a man could only legitimately become a specialist after having thoroughly acquainted himself with the principles of medicine and surgery as exemplified in their every branch and department." He concluded with a remark

on provident dispensaries, which accords with our own views, though it will doubtless excite opposition.

Mr. Owen condemned special hospitals, though he approved special departments in general hospitals.

We have selected these points for mention, but many others might have been just as well taken; indeed, the lectures are full of topics, any one of which would suffice for several articles. We refer our readers, then, to the reports we give, assured they will find much to please them.

## THE INITIATION OF SANITARY LEGISLATION IN IRELAND.

THE anticipation to which we gave expression when, the week before last, we deplored the error which had been committed in entrusting the regulation of salaries and the discharge of the most important sanitary functions of Ireland to boards of guardians, bids fair to be verified more speedily than we had expected. The circular of the Irish Local Government Board called upon the guardians (as the sanitary authority) to proceed at once to elect officers, but, at the same time, recommended that "the allotment of salaries be deferred until the amount of work be ascertained." In proceeding to carry into effect these somewhat inconsistent instructions, the rural sanitary authorities have been divided into two bodies. One section, which proves itself to be the strongest both in number and in energy, protests against and denounces the proposal to appoint a sanitary staff—considers that the health of the country is quite good enough as it is—believes that a few cesspools and dung-heaps, more or less, are not worth speaking about—objects with much vehemence to increasing the taxes—would be glad to let the doctors do as much sanitary work as they liked provided they expected no payment, and finally, resolved to resist sanitation by every constitutional means.

To this body of recalcitrants belong the guardians of Ennistymon, Bandon, Skibbereen, Tobercurry, Ballymoney, Athy, and many others. We are ashamed to say that amongst the opponents of improvements Mr. McCarthy Downing was conspicuous, and that he informed the Skibbereen guardians that he anticipated that there would be a very general opposition to the Local Government Board, for that all Ireland was taking the matter up.

The second section of the rural sanitary authorities are those who, having involved themselves in a hopeless effort to understand the Act of Parliament and their own duties, have been obliged to postpone the matter to another occasion, or else make appointments in the dark. Being ordered to appoint the dispensary medical officers as health officers, they were entirely in the dark as to the amount of salary to be fixed. Many of them did not consider a consulting health-officer necessary at all, and some of them having selected such an officer, found that he refused to act because his salary was not stated. At Abbeyleix the clerk of the union was very properly nominated as executive health officer, but refused to accept the office at the salary of £10, which was proposed, and the guardians were compelled to "try back" and rescind their vote with a view to an increase.

The first effort at Irish sanitation seems thus to have

been very unfortunate, and for the present the working of the Act is an utter and miserable muddle. It would have been wiser, as we think, for the Local Government Board to have made in the first instance some effort to assess the reasonable amount of salaries, basing their calculations upon the extent of the district, the ratio of its population per acre, and the social condition of that population. The number of dispensary tickets issued in the district, and in doubtful cases the knowledge of the locality possessed by the Local Government inspector would, with the other available statistics, have enabled them to offer to the rural sanitary authorities some practicable suggestions upon the subject, and we imagine a great majority of the guardians would have gladly availed themselves of the advice, if only to escape from the dilemma. The whole transaction is a pitiful illustration of the evils which are created by the timidity of legislators and the want of vigour and good sense in the framing of sanitary law. In order to disarm opposition and get the Bill through Parliament in some shape or other, the motive power of the system is placed in the hands of persons whose direct interest, in many instances, it is to resist the carrying of the measure into effect, and who, in any case, are supremely ignorant of the subject, and usually entirely incapable of making themselves acquainted with it. We declaim about the want of cleanliness, the propagation of disease, the extravagance both of health and money involved in the neglect of precautions; we appoint a commission and pay experts to frame a faultless system, and at great expense, and after much talking we solemnly decree that this system shall be the law of the land; and then! we put our complicated machinery into the hands of men who think that the whole affair is a mistake, and who are densely ignorant of its principle, perfectly incapable of working it, and quite unconcerned as to whether it goes smoothly or stops altogether. Is it any wonder that the machine has to be sent back time after time to be cobbled and readjusted by those who were afraid to make it right at first, and meanwhile the *désagréments* which it was intended to remedy increase and flourish, and the public suffers.

In the case of Irish sanitation, the real fact is that Sir M. H. Beach and his Government feared to forfeit the support of twopenny town councils and boards of guardians, and were induced to introduce into the Bill modifications which have made it, though excellent in principle and object, one of the worst and most unstatesmanlike measures which ever emanated from Parliament.

## Notes on Current Topics.

### On Rabies Mephitica.

A WRITER in the *American Journal of Science* believes that he has discovered a new disease, which is related to hydrophobia and that odious animal the skunk. This discovery he names "Rabies Mephitica," and thus relates what first called his attention to the novel facts presented: While on a tour in the Rocky Mountains our camp was invaded by a nocturnal prowler, which proved to be a large coal-black skunk. Anxious to secure his fine silky fur uninjured, I attempted to kill him with small shot, and

failed. He made characteristic retaliation, and, then rushing at me with ferocity, he seized the muzzle of my gun between his teeth! Of course, the penalty was instant death. An experienced hunter then startled us by saying that the bite of this animal is invariably fatal, and that when in perfect apparent health it is always rabid. He resented our incredulity, and confirmed his statement by several instances of dogs and men dying in convulsions shortly after being thus bitten. On mentioning this adventure to H. R. Payne, M.D., who had been camping with miners near Canon City, Col., he said that at night skunks would come into their tent, making a peculiar crying noise, and threatening to attack them. His companions, from Texas and elsewhere, had accounts to give of fatal results following the bite of this animal. Since returning to Kansas city I have had extensive correspondence with hunters, taxidermists, surgeons, and others, by which means the particulars have been obtained of forty-one cases of *Rabies mephitica* occurring in Virginia, Michigan, Illinois, Kansas, Missouri, Colorado, and Texas. All were fatal except one; that was the case of a farmer, named Fletcher, living near Gainesville, Texas, who was twice bitten by *M. macroura*, yet recovered, and is living still. On further inquiry it was found that he was aware of his danger, and used prompt preventive treatment. Another case was alleged to be an exception, that of a dog which was severely bitten in a long fight with a skunk but whose wounds healed rapidly and without subsequent disease. It seems, however, that this dog afterwards died with mysterious symptoms like those of hydrophobia in some of its less aggravated forms.

The writer proceeds to give the particulars of a large number of well-authenticated cases of this new disease, and the peculiar manner in which its victims were affected. He continues: It is evidently the opinion of Dr. Janeway that the malady produced by mephitic virus is simply hydrophobia. Should he be correct, then, all that is established by these facts would be this—viz., that henceforth the varieties of *mephitis* must be classed with those animals that spontaneously generate poison in the glands of the mouth and communicate it by salivary inoculation. From this, as a starting point, we might go further, and seek a solution of the whole mystery of hydrophobia, in the theory that this dread malady primarily originates with the allied genera of *Mephitis putorius* and *Mustela*, widely scattered over the earth, being from them transferred to the *Felidæ* and *Canidæ* and other families of animals.

### An American Debate on Cancer.

THE London debate on cancer will be fresh in the minds of all our readers. As appendant to it we give the following account of a debate at the Baltimore Medical Society, reported in the *Philadelphia Medical and Surgical Journal*.

Dr. Monmonier exhibited a scirrhus tumour removed from the breast of a lady patient of Dr. Arnold. The wound was healing nicely.

Dr. Friedenwald asked how much the patient was benefited by the operation.

Dr. Monmonier said that the benefit is that the removal of the tumour relieves the pain and gives the patient a

chance. Of course, it is impossible to tell whether it will return or not.

Dr. Friedenwald was of the opinion that every case operated on had been a failure; the benefit is very temporary, and in a few months the disease generally returns; he looks upon all cancerous affections as extremely unfavourable. A lady suffering with a tumour in the breast called in Dr. N. R. Smith, who advised ablation. Some of her friends advised her to try electricity, which she did without receiving any relief. Then she was recommended to apply to a cancer doctor from the Eastern Shore, but not having sufficient money to meet his demands she was induced to enter the Hebrew Hospital. Dr. A. P. Smith removed the breast. Upon cutting down upon it a serous liquid escaped, and the tumour collapsed; he carefully dissected out the cyst, closed the wound, and the patient got well; but in two months after the disease had returned in the form of melanotic cancer, from which she died in three or four months.

Dr. Lynch remarked that all true cancers are constitutional, but scirrhus is in many instances only a local affection. In 1862 he was called to see a slave, æt. fifty, who had a large tumour in the breast, hard as a stone, producing a great deal of pain. On July 4th, 1862, it was removed, together with every gland which appeared to be involved in the disease; four ligatures were applied and the wound closed. The incisions healed by the first intention except a small portion at the inferior angle. Up to 1872 there had been no return of the disease. The tumour was so hard that to make an examination of it a hatchet had to be used to cut it open.

Dr. Monmonier said he had operated on some five cases, in one of which the glands were very much enlarged, but in none had there been a return of the disease. English surgeons say that scirrhus is a local affection, and not a constitutional disease.

Dr. Morris said he had a case of cancer of the breast now under treatment, in which there is no pain in the tumour, but excruciating pain in the sciatic nerve. Drs. Johnson and Miltenberger have seen the case, but can offer no relief. Large doses of morphia combined with chloral have to be given at short intervals.

Dr. Lynch asked whether the pelvis had been examined to see if there was a tumour pressing on the sciatic. He could not see the connection of the two unless there is cancerous disease of the pelvic glands.

Dr. Morris said the pelvis had been examined superficially, not *per vaginam*.

Dr. Bates referred to a case of scirrhus occurring in a relative. Dr. Valentine Mott removed the breast more than ten years ago, and up to the present time there had been no further trouble. He thought removal was justifiable in these cases, even though we believe the disease will return, because by the operation the patient is relieved, for a longer or shorter time, of the intense pain; and then there may be the possibility of permanent cure. Diseases are affected very little by what we believe, and where death is otherwise inevitable we are not justified in depriving our patients of every chance of life. It is the opinion of surgeons that if the lymphatic glands are not involved there is a reasonable ground for expecting a cure,

but if they be much implicated the disease will most likely return. Within a few years there seems to have been a complete change in the treatment of the wound made by the operation. Formerly it was insisted on that union by first intention was to be desired. Now some, surgeons teach that suppuration should be encouraged in order that all particles of cancerous matter may be removed.

Dr. Monmonier said that the English surgeons are in favour of a certain amount of suppuration. Dr. Erich had treated a patient in which the disease was both local and constitutional. The woman suffered from scirrhus of the uterus. Symptoms indicative of acute gastritis supervened, and the patient died. On post-mortem examination a large scirrhus tumour was found occupying the walls of the stomach, and four or five small deposits in the bowels.

Dr. Morris said that Dr. Lynch could not see why scirrhus of the breast should produce the severe pain in the sciatic nerve. As a case showing how irritation of an organ may produce pain in a very distant part, he would refer to the case of a prominent physician of this city. He suffered with neuralgia of the fifth pair for more than a year, used various remedies, and had his teeth removed, but obtained no relief. Thinking that probably a change of climate would benefit him, he went to Jamaica, but returned much reduced, and worse than ever. He also suffered from prostatic disease, could never empty his bladder perfectly, and had frequently voided pus. By the advice of some of his professional friends he resorted to the use of the catheter and has not been troubled with the neuralgia since.

#### Tracheotomy on a Child Sixteen Months old, for Croup—Recovery, and Ejection by the Mouth of a Fibrinous Clot in a Month afterwards.

DR. HEMLEY relates a case of this kind, where the child presented the most marked symptoms, with almost complete absence of respiration in the left lung. Tracheotomy was performed, when in a short time the respiration fell remarkably, and the child was able to suckle. It made a rapid recovery, and in one month afterwards, being seized with a sudden spasmodic cough, it ejected a clot about the size of a boiled pea, which on section and microscopic examination showed its composition to be fibrinous.

#### The London Societies.

MOST of the Societies will have held their initiatory meeting before the appearance of our next number. The Obstetrical meets on the 7th inst.; the Clinical on the 9th; the Medico-Chirurgical on the 13th.; the Harveian on the 15th.; the Medical on the 9th inst.; and the Pathological on the 20th inst. The times, places of meeting, and the general arrangements are the same as heretofore.

It is hoped that the number of deaths from the fearful explosion in London last week will not exceed the three men who were on board the barge at the time. Of course, the destruction of property is very great, no less than a thousand houses being more or less damaged.



### Action of Ergot on the Infant.

THE opinion that ergot does not cause the death of the child during labour is somewhat strengthened by a case related by Dr. E. R. Herschel in the *New York Medical Record*, in which a new-born infant, by accident, received half a teaspoonful (thirty drops) of Squibb's fluid extract of ergot. Efforts to make the infant vomit failed. In an hour it was seized with severe abdominal pains, recurring every fifteen minutes, and lasting about one minute. Slight tetanic contractions of the face and extremities were present, and four hours subsequently diarrhoea set in. All the symptoms yielded to hot baths in twelve hours, though for two weeks there was a tendency to diarrhoea.

### Suffocation of a Child.

AN inquest was recently held at the Marylebone Workhouse, by Dr. Hardwicke, on the body of J. S. Lopez, aged 2 months, the infant son of Mr. Lopez, of 15 George Street, Portman Square.

Annie Clark, nursery governess in the family, stated that she accompanied the wet nurse with deceased and three other children for a walk; the face of deceased was covered with a handkerchief. Upon their arrival home she went into the parlour, and the nurse took the deceased up-stairs, but she returned almost immediately, and put the child in her lap, when she discovered it was dead.

Mr. Lopez said that his wife was unable to suckle the child, and he engaged a wet nurse. On the day of the occurrence he heard a scream, and going into the parlour he found his child dead in the arms of Miss Clark. He immediately sent for Dr. Roberts, who attended.

Dr. Roberts stated that he had made a post-mortem examination of the body, and found a quantity of milk in the windpipe, which had caused suffocation.

The wet nurse (a very young woman) stated that when she took the infant up-stairs and removed the handkerchief from its face she thought it looked very strange, and ran down-stairs and placed it in Miss Clark's lap.

The coroner said the death probably arose from the inexperience of the nurse, and he hoped it would be a caution to her for the future. The jury returned a verdict of "Accidental death."

### University of Edinburgh.

DR. RUTHERFORD, Professor of Physiology in King's College, London, has been elected to succeed Professor Hughes Bennett in the Chair of Physiology in the University of Edinburgh. It is probable that Prof. Ferrier will take his class at King's College.

### The German Sanitary Congress.

THE meeting of this association was held at Dantzic on Sept. 12th and three subsequent days.

The first subject discussed was "The Demands of Public Hygiene on the Regulation of the Buildings of New Parts of Towns, Streets, and Houses."

The second question was "The Influence of different Dwellings on the Health of the Inmates, so far as could be ascertained by Statistics." From observations made in Berlin, it appeared that cellars and attics were both particularly unhealthy, and liable to produce diarrhoea.

On the second day an examination of the drainage and sewerage of Berlin was made, under the guidance of Herr von Winter.

The next subject discussed, on the third day, was "The Reasons for and against the Congregation of different Kinds of Disease in a Hospital."

Dr. Birt, of Berlin, brought forward some interesting facts in connection with the subject of "The Employment of Women in Factories;" after which Professor Reichardt, of Jena, and Engineer Schmich, of Dresden, urged the necessity of an ample supply of spring-water to towns, whatever difficulties had to be overcome in order to render the quantity sufficient.

### The "Worcester" Training Ship.

A SEVERE outbreak of scarlet fever has occurred amongst the boys on board this ship. The authorities of the vessel, however, having acted promptly on the advice of the sanitary officers, the epidemic has been checked, and effective measures taken to prevent its spreading.

### Hunterian Society.

A MEETING of this Society will take place at the London Institution on October 14th, at 8 p.m., when Dr. Richardson, F.R.S., will read a paper on "The Pathological Results of Pectous Change in Colloidal Structures."

### Scarlatina in Dublin.

THE last report of the Registrar-General records a remarkable diminution in the large number of deaths from scarlatina which we noted as having occurred in the previous week. The mortality from that disease for the week which terminated on the 26th of September was only 18, or 16 less than in the previous week. We can hardly hope that so great a diminution can be permanent; but it leads us to believe that the epidemic is rapidly declining, and that the danger of the further extension of the disease will have ceased before the return to town of the families who have been spending their summer at the suburban watering-places.

### Pointed Coccyx.

AT a meeting of the New York Pathological Society, in April, Prof. L. A. Sayre exhibited the lower end of a coccyx from a young lady, having been congenitally malformed. The end was very sharp, "as sharp as a needle," the doctor said, and bent outward and backward. The sensation of pain, says the *Philadelphia Reporter*, was so exquisite that she could not sit upright, but always bent over. As a result, her form became bent, and chorea supervened. She finally came under the care of Dr. Sayre for the treatment of "Pott's disease." The extremity shown was excised. After the bone was sawed off the action of the muscles caused a very large opening to appear, much larger than the space occupied by the bone. It filled up nicely, and the hysterical symptoms disappeared.

WE understand that the *Graphic* of Saturday next will contain a biographical notice of the late Dr. Arthur Jacob, together with a portrait engraving taken from the painting in the Royal College of Surgeons in Ireland.

### Incompatibility of Pharmacy and Medicine.

THE *Pharmaceutical Journal* says that the Court of Appeal at Brussels has recently confirmed a judgment which condemned Dr. Camphenout for having supplied his patients during three years with homœopathic medicines. The decision of the Court was based upon a law of 1818, by which a medical man is absolutely interdicted from practising pharmacy together with medicine, except in certain specified cases, even although he may hold the diploma of Doctor of Pharmacy. A medical man is not allowed to supply medicines to a patient even gratuitously.

### The Chair of Chemistry in Dublin University.

WE understand that it is in contemplation to divide the Professoriate of Chemistry, which has been long held with much distinction by Dr. Apjohn, into two separate parts, the medical section of the subject being confided to a separate professor with a separate laboratory. Although Dr. Apjohn has hitherto discharged the duties of the chemical chair with great ability and with credit to the University, nevertheless, we can easily understand that the growth of the School of Physic in recent years has rendered indispensable the devotion of more time to medical chemistry than the interests of the arts and engineering students would allow of.

### The Standard of Milk Purity.

IF we were to put complete confidence in the report of Dr. Lankester, in his capacity of Medical Officer of Health to St. James's Westminster, we should find it difficult to understand how the prosecution of any milk dealer can be justified by analytical evidence, and we should be forced to the conclusion that in the article of milk, analysis is powerless to decide the question whether it be pure or not.

We find that Dr. Lankester has examined, within the year, 68 specimens of milk, not one of which he was able to declare to be adulterated, and only 14 of which were even "suspected." This would undoubtedly be a very gratifying condition of affairs if we were satisfied that the limit of adulteration and suspicion was fixed. We observe, however, that though Dr. Lankester found as much as 30 per cent. of cream in one sample of milk, 26 per cent. in another, and 13 to 15 per cent. in several others, yet he could only eliminate 7 or 8 per cent. of cream from many of the samples which he declares to have been unadulterated, and he does not label any sample as "suspected" until its richness falls below 5 per cent.

It would thus appear from Dr. Lankester's analysis that, though a rich specimen of pure milk may contain as much as 30 per cent. of cream, and an average specimen 15 or 18 per cent., yet the analyst cannot be sure that a sample containing only one-sixth of the quantity which a rich milk should contain is diluted. Dr. Lankester explains this unsatisfactory vagueness by pointing out that, although by analysis of a great number of specimens it is easy to say what is the quantity of butter, cheese, and sugar they contain, it is impossible to compel each cow to give the same quantities of these substances. It is a known fact that these substances will differ in almost every specimen of milk obtained from different cows, and from the same cow at different milkings.

We should be gratified to know whether, under any circumstances, an unsophisticated specimen of unskimmed milk could yield as low a percentage of cream as 4, for if such a condition be possible, it is incredible that any analyst can declare the presence of adulteration at all.

### Periosteotomy.

PROFESSOR HOUZE DE L'AULNOIT not only known as Surgeon to the Hôpital St. Sauveur at Lille, but also from the way in which he identified himself as Vice-President of the Central Committee for the northern part of France during the late war, has published an interesting work, which he entitles, under the category of "*Chirurgie Expérimentale*," *Etude Historique et Clinique sur les Amputations sous-périostées*. His system of operating in cases of amputation consists in substituting for the old method an entirely new one, to which he has given the name "*la Périostéotomie*," which means as follows: After the first incisions and flaps, say of a thigh, have been made by the operator, and properly retracted by the hands of an assistant, instead of the usual direction given in all surgical works and lectures—"with another sweep of the knife divide the periosteum"—he advocates the dissection upwards, by means of a bistoury, of the periosteum, and the formation of flaps of the same, so that when the limb has been removed these flaps can be made to form the immediate covering of the bone. Dr. Aulnoit advocates specially his system of "*Périostéotomie*" because the periosteum, having, in health, been in intimate connection with bone, becomes not only a bone protector, but also a bone-growth promoter, (if I may be allowed the expression) after such an important operation as the amputation of a limb.

Dr. Aulnoit gives interesting details of many cases from the battle-fields of the late war, as well as many others, in support of his new theory, which he is sanguine may be adopted everywhere.

### Visitation of Examinations.

THE visitation of examinations of the Medical Council, which gave rise to so much excitement this year, is to be continued during the coming winter, and twelve of the medical licensing bodies will come within the inspection—viz., the University of Edinburgh, St. Andrews, Aberdeen, Oxford, Cambridge, Durham, and London, the Colleges of Surgeons of London and Edinburgh, and the Colleges of Physicians of London and Dublin. We have reason to believe that new blood may probably be infused amongst the visitors, and that the Executive Committee are now engaged in selecting from a large number of names selected from the leading teachers of the three kingdoms.

### Homœopathic Moonshine.

WE hope the homœopathic fraternity will fully appreciate the following story, which is told by our able contemporary the *Pacific Medical*.

The *North American Journal of Homœopathy* is published quarterly by Boericke & Tafel, in New York, 145 Grand Street, in San Francisco, 234 Sutter Street, and by Henry Turner & Co., London and Manchester. The Editor is "S. Lilienthal, M.D., No. 230 West 25th Street, New York." We give these particulars to show that the

publication is of undoubted authority, and that the quotation we are about to introduce belongs to genuine homoeopathy. In the number for May, 1874, is an article from the pen of S. B. Higgins, M.D., Charlotte, N.C., entitled "Solar and Lunar Influence." The article appears among the original papers, without comment. Omitting a few paragraphs at the commencement, on the subject of the influence of moonlight on fishes, &c., we copy the rest of the paper literally, with italics just as we find them, leaving comment entirely to our readers.

"When the moon is nearly full, many persons who lie down in the open air, exposed to its rays, suffer pains and œdema of the parts exposed, on the ensuing day, and sometimes they lose their reason when the moonlight is concentrated on the head; hence, no doubt, the origin of the word "lunacy" or "lunatic," or misconstrued. I have treated several of these cases with the remedies recommended in the manuals, but never with rapid success till I had discussed the subject in my own mind awhile, and argued thus: If the moonlight *causes* the pain and œdema, there must be virtue in moonlight to *cure* it; so I exposed a glass half full of pure water to the direct and reflected light of the moon for three or four hours; at the end of this time I poured the water into a perfectly clean bottle, and shook it well for a moment or two. The next day I had a case of œdema of the face and hands, with violent pains in the swollen parts, of a neuralgic nature, in a stout negro, of about 35 years of age, who had slept the previous night in the open air, exposed to the rays of the full moon. I gave him about two ounces of the prepared water from the bottle marked "Luna" with directions to take a spoonful every hour till relieved—this at 8 a.m. At 12 m., and after having taken three doses of the *Luna*, he was relieved of all pain, and at 4 p.m. the œdema had entirely abated. After such marked success, I treated several similar cases with *Luna* with the same unvarying quick relief. Reminding my friend, the Doctor, of these cases, I asked him if he had noticed whether Mrs. N. N.'s sufferings were aggravated at the time of full moon. This he had not noticed, but made a note of it to report at a future conference. About a month later, we met one evening, and he said that two days previously (*the day after full moon*) Mrs. N. N. was taken suddenly with the most violent attack of metrorrhagia she had ever had, and her pains were most excruciating. Then, I replied, we must have found the key to the whole enigma; if I am right, moonlight causes the disease, moonlight will cure it—give her *Luna*. A glass was prepared that night and sent to her next morning, with directions to take a table-spoonful every hour till relieved; at the *third* dose the flow and pains ceased as if by magic. The ensuing month pains and flow presented themselves as usual, but *two* doses relieved entirely. A month later, pains and flooding again, but a single dose sufficed this time, and the month following menstruation was normal—no pains or excess of flow. Thus, this patient, after two years' suffering and agony, was restored to perfect health. Three years afterwards there had been no relapse. After her cure she remembered distinctly that every time she sat exposed to the moonlight at the full of the moon her sufferings were in every way aggravated; when she kept in the house at this epoch she suffered much less; now she sits exposed to the moonlight for three or four hours with impunity.

"We prepared *Luna*, and potentized it up to the 13th potency—a powder of which I have furnished to Dr. Samuel Swan, 13 West Thirty-eighth Street, New York, and it will soon be potentized up to the *cm.* potency by his new potentizing machine, just finished. I have used it for all cases of abnormal menstrual troubles which are aggravated at the period of full moon, at the 6th cent. potency, without having as yet to record a case of failure. Relating the preceding case to Dr. Swan, in December, 1872, he prepared some Sac. lac. by exposure to the concentrated rays of the sun, and has had this potentized by Dr. Fincke up to the *cm.*, and with different high potencies has cured several cases of headache where patients could remember having suffered at any previous time by

exposure to the sun. I believe that in such cases, which do not yield readily to other remedies, it will prove a specific, and, as such, of great value in our M. Medica. Dr. Fincke has potentized *Luna* up to the *cm.* potency; but this is from the moonlight in our climate, which, I think, may possibly be less powerful than the preparation I brought from South America; but as yet I have not had any opportunity of testing it so as to institute any comparison between the effects developed by the one and those developed by the other.

"Yours fraternally,  
"S. B. HIGGINS."

THE number of deaths resulting from the Norwich accident has now reached twenty-five. There are still one or two victims lying dangerously wounded.

MESSRS. CHURCHILL have issued their annual Red-Letter List, containing announcements of their forthcoming new works or new editions for 1874-75.

A STORY is current that the remains of Lady Dilke have been removed from London by her husband, Sir Charles Dilke, to Germany, for cremation.

THE Registrar-General reports during the week ending last Saturday 5,548 births and 3,168 deaths in 21 large cities and towns of the United Kingdom. The average rate of mortality in these towns was 22 per thousand.

THE marble statue of the Queen, sculptured by Mr. Noble for St. Thomas's Hospital, has been unveiled. It has been placed at the foot of the grand staircase. The statue was presented to the hospital by Sir John Musgrave, Bart.

By the will of the Rev. C. Awdry, late of Worthen, Salop, the Shrewsbury Infirmary receives £100. The Rev. Henry Jenkins, late of Stanway, Essex, has bequeathed £52 10s. to the Essex Hospital.

THE meeting of the Pharmaceutical Society of Great Britain will be held this evening, October 7th, at eight o'clock. The sessional prizes and certificates will be distributed at this meeting. An address to the students will be delivered by Mr. R. W. Giles, of Clifton. Ladies are invited to be present.

THE first meeting of the Harveian Society of London will take place at the Society's rooms on Thursday, the 15th instant, at 8 p.m., when the hon. treasurer, Mr. Henry Power, will read a paper "On Purulent Ophthalmia."

BEFORE the delivery of the inaugural address at St. Thomas's Hospital, on Thursday last, Sir Francis Hicks, the treasurer, said that at the annual distribution of prizes it was customary to reward such students as displayed most proficiency in surgery and anatomy with a prize, in the shape of a valuable gold medal. He was glad to announce that an accumulation of money had arisen from funds placed in their hands some years back, and arrangements were now pending for the founding of a gold medal, to be awarded on similar conditions as the other, to the most proficient student in medicine.

AND yet another edition of "Squire's Companion to the British Pharmacopœia" is announced—but twelve months since, and the ink was scarcely dry upon the ninth edition—an illustration of how a book sometimes sells. We should hazard a guess that there is not another medical book in the English language which sells at the rate of 2,000 copies per annum.

MESSRS. BAILLIÈRE, TINDALL, and COX have just published a large volume, royal octavo, giving names, addresses, and qualifications of the medical profession in America. This is the first medical directory that has ever been compiled for the States, and upon opening its well filled and well arranged pages, our only surprise is that such a go-a-head race as our cousins have the credit of being should have gone on so long without so valuable a book of reference.

DR. HARDWICKE, in a report on the health of Paddington, makes the following grave charge against the district: 'The deaths in young children are, as usual, very high—372 of total deaths, far too high, indicating some grave fault somewhere. 84 young children were taken off by measles, whooping-cough, and bronchitis, no doubt deaths all accelerated by undue exposure to cold while suffering from attacks of these complaints; 86 more deaths are from the consumption class; 29 deaths from violence, or accidental; 3 from suicide, and 3 from infanticide—these latter by persons unknown, who are thereby guilty of wilful murder of newly-born infants.'

## Literature.

### CLINICAL MEDICINE: LECTURES AND ESSAYS. (a)

WE begin our notice of this volume of lectures and essays by stating that the author had been formerly a pupil of the Meath Hospital, Dublin, and that the work is dedicated to Dr. Stokes. The volume itself is one of great merit, is pleasant reading, and is made up of a series of ten essays. Most of these are of great practical importance; but it may be well to notice them somewhat more in detail.

The first is "On the Treatment of Ulcer of the Stomach," and is an essay of much practical value. We need scarcely observe that this affection occurs chiefly in young females, and that the ulcer does not present any specific character. The main object of the author through the entire essay is to show the great value of complete rest, in order to allow the ulcer to heal; and to this end he dwells on the vast importance of keeping up the patient's strength solely by nutritive enemata, a formula for composing which will be found at page 24. During the use of these no food whatever is to be given by the mouth, and, as a general rule, the author states that from eight to ten days is quite sufficient to enable the ulcers to begin to heal. Then, and only then, very small quantities of the mildest food, such as milk, is to be given, and the quantity very gradually increased. By this plan, steadily carried out, the writer speaks of the certainty of getting this class of ulcers to heal; and in proof of this three cases are detailed, in which

there could be no reasonable doubt but that ulcers did exist, and did heal. Besides other symptoms, each of these cases had hæmatemesis. This seems to us conclusive of the nature of the cases, and the steadiness, and we would add rapidity with which the urgent symptoms yielded under the plan is very remarkable. Whilst placing rest in the very foremost place, however, the author does not ignore medicines, of which he chiefly speaks of opium and bismuth as being each most valuable in their way. We may add that the cases are very well detailed, and, as far as was known, the cures were permanent.

Though the second essay is a valuable one, it has not the interest of the last. It is "On Cyanosis from Patent Foramen Ovale." In one sense this is a rare affection, and yet we must be prepared to answer all that is known about it, and even to prescribe for it. In the vast majority of cases the arrest of development is permanent, and nothing beyond temporary relief can be afforded. In one instance, however, given by the author, where the affection was quite marked at birth, it disappeared at the end of some weeks. This child was one of several where the affection showed itself in the same family, and yet some of them were born quite healthy. This, in itself, is a remarkable fact, and the history of this family, as given by the author, will well repay perusal. We may add that the medicine from which the children got the most marked relief was the peroxide of hydrogen, first brought into notice by Richardson.

The third essay is "On the Use of Ether in the Treatment of Phthisis." We need not dwell long on this subject. In the course of some enquiries into the nature of phthisis, the author was led to think that the pancreatic juice was often deranged, and that, according to Brown-Séquard, ether had a specific effect in altering and improving the secretion. Hence our author was led to use it, at first in an ordinary mixture, and finally, in combination with cod-liver oil. The results in our author's hands would seem to have been very encouraging, and much beyond what could be gained from the oil by itself. We ourselves have tried the combination of the two drugs, but we have not been able to satisfy ourselves that there was such a marked difference in the results. That the effect of the ether is to stimulate the pancreas is, we think, very probable. But in different cases the taste was so unpleasant that the patients begged it might be given up.

The fourth essay is "On Digitalis in Heart Disease." This is a subject about which, it appears to us, there still hangs much obscurity. Not that we doubt for a moment the great power and efficacy of the drug; but that we are forced to question the theories on which its action is said to depend. It has appeared to us that in an inquiry of this kind much more precision is required than has yet been given to the question. Thus, there can scarcely be a doubt but that the different preparations of the drug act differently the one from the other. We recollect reading a paper many years since in which it was stated the effects of the tincture were very different from those of the infusion; and, if we are not mistaken, the powder has the most special claims on our attention from the same point of view. Again, we observe that the doses of the drug are not as defined as, it appears to us, they ought to be. We know of course that different patients will bear different doses; but making allowance for this, much more exactness may, we believe, be attained. Our author, p. 94, speaks of using one to three drachms of the infusion three times a day. The dose in the British Pharmacopœia is given at two to four drachms. Hence we conclude that four drachms is a perfectly safe dose, and further, that our author has not used the drug so as to ensure its full effects. If we recollect right, this was not the way Withering acted, but that in most, if not all his cases, the full physiological effects of the drug were produced. We are quite aware that exception may be taken to this line of argument, but we feel sure enough has been advanced to prove the object of our remarks, which is, that if we wish to ascertain the real powers of a drug like digitalis, we must conduct our experiments in a more exact and defined way

(a) "Clinical Medicine: Lectures and Essays." By Balthazar Foster, M.D., Fellow of the Royal College of Physicians, Professor of Medicine in Queen's College, Physician to the General Hospital, Birmingham, Consulting Physician to the West Bromwich District Hospital, &c. London: J. and A. Church, 11, New Burlington Street, 1874. Pp. 864.

than has yet been done. We observe our author commences this essay by stating the great differences of opinion which have existed as to the effects of this drug; and we believe that some at least of these difficulties will be lessened by following out our suggestions. Our own direct experience goes to prove the great value of the medicine in cases of mitral stenosis, and chiefly when the beat of the heart is weak and irregular, the extremities cold and blue, and the dyspnoea urgent. We entirely concur, too, with Peacock, that the diuretic effect of the drug has of late been quite too much overlooked, and, if our memory do not fail us, it was this effect which is so admirably illustrated in the work of Withering. The subject is too large, however, to follow further here, nor, indeed, will our limits allow us to do much more than name the remaining essays of the volume before us.

The fifth essay is "On Rupture of the Aortic Valves from Accident." The cases given are of much interest, and go to confirm the fact that in certain states of the constitution and from over-exertion one of the aortic valves is liable to rupture, which, sooner or later, leads to a fatal result. For ourselves, we do not believe that such an accident will occur in a perfectly healthy man.

The sixth essay is "On the Synthesis of Acute Rheumatism," and we must say it proves to demonstration that, in some instances at least, if not in all, this disease is due to an excess of lactic acid in the system. For the proof of this important fact, which many, and, amongst the rest, the author himself, doubted, we must refer our readers to the essay itself.

The seventh essay is "On Duchenne's Paralysis," and is one of much interest. It scarcely admits of doubt but that this affection is of a specific kind, and, as such, requires to be distinguished from other diseases with which it has more or less analogy. It has not chanced to ourselves to meet any example of the affection. It is worthy of noting that two of the examples given occurred in the same family. It does not appear that treatment has in any instance been successful. Some of the cases detailed are illustrated by engravings.

The eighth essay is headed "Observations on Diabetes Mellitus and its Treatment." This essay is probably the most elaborate of the whole series. The reader will find in it many new views on the subject, and the great importance, in a clinical point of view, of separating the disease into different classes. From the number of cases given by the author we get the impression that the disease is much more common in England than with us in Ireland. Hence the importance of the divisions of the disease which the author has made. Thus, it appears that, while in some instances an exclusively animal diet causes a great diminution of the sugar, in others the same result is not obtained; and, again, an analogous effect has been observed as regards the effects of medicines, for in some of the cases one medicine did good, whilst with others it completely failed. We consider these points as to diet and medicines in relation to the treatment of diabetes as of much importance, and as tending to remove, and in a very marked degree, some of the difficulties which surround the subject. We must refer our readers to the essay itself for the details to which we have alluded, and would only mention here, that amongst other means which the author tried was the peroxide of hydrogen—a medicine introduced, as we before stated, by Richardson, and which seems to produce very specific effects on the human frame. We may notice, too, a fact on which the author dwells—viz, that in the cases of the most severe forms of diabetes, where the wasting went on with great rapidity, yet in these very cases the temperature kept steadily below the healthy standard. We must leave to others the explanation of this erroneous phenomenon, as well as other points of much interest detailed in this essay.

The ninth essay is entitled "Cases Illustrating the Use of the Sphygmograph and Cardiograph in the Study of Diseases of the Heart and Great Vessels." This essay is also very elaborate, and illustrated by the details of several cases of much interest. Case 3 struck us as one of

peculiar importance. It is given at some length, and, besides the presence of disease of the aortic valves, had also an aneurism of the left subclavian artery. The tracings of the two radial pulses exhibited a marked contrast the one to the other. The autopsy, it may be added, confirmed the points of diagnosis which had been made out during life, as also the exact situation and state of the aneurism, which we may also observe had led to considerable wasting of the arm. The entire essay will well repay perusal.

The tenth and last essay is "On a Case of Pleuritic Effusion, in which Embolism followed Thoracentesis by Aspiration." This is a case of great interest. The patient, a man of 26 years of age, had suffered from right pleural effusion for several months, and was finally obliged to enter hospital and have the fluid drawn off to the amount of 130 ounces. Within three days the patient was seized with pain in the calf of one leg, and this was followed by symptoms of obstruction of the artery, and then signs of gangrene of the limb. The other limb was then attacked in the same way. The renal secretion became very scanty for some days, and though this improved again, the general symptoms did not, and the patient died about twelve days after the chest had been tapped. Embolism, which the author traced to the pulmonary veins of the compressed lung, was formed, and in a very marked degree in the different arteries where mischief was shown during life, as also in the kidneys and spleen. There were traces, too, of tubercle, both on the peritoneum and the surface of the pleura. The remarks of the author on this rare case are of interest. He naturally regrets that the effusion had not been removed long before; and there was certainly every reason to suppose that, had it been earlier done, the man's life would have been saved. But we cannot pursue the subject further here.

We have now given the very briefest sketch of the several essays of which this volume is made up. They are all characterised by good sense, by acute observation, and, as far as we know, a thorough knowledge of the matters in hand, and we have no hesitation whatever in recommending the volume to the notice of our readers.

#### MEMORIALS OF THE LIFE OF JAMES SYME. (a)

THE life of the late Prof. Syme is full of interest to the lover of his profession, and this volume of memorials has no doubt been eagerly perused by thousands of his admiring pupils. To them it will recall vividly some of the traits of their master, and its incidents will bring to their memory passages of his life of which they have often talked together, for Syme so interested his pupils that his personality was always a pleasing subject of conversation among them, and through them the outer world—medical—has been filled with rumours of his powers and of his goodness. His ability in diagnosis—though few will deny that ever he made serious mistakes—his skill as an operator, his wondrous coolness, his patience, his daring, his abundant resources—are not all these engraved in the memory of the admirers of surgery by the numerous anecdotes circulated by his pupils. Nor was he less remarkable for the kindness, hospitality, and nobility of purpose which are seen in his character. His determination and—shall we call it his self-will?—led him to take a very prominent part in Edinburgh controversies. Some of these were of a painful kind, and we could wish the author had not dwelt upon them; they detract from the general picture of the man too much, for they were, after all, only episodes in a life mainly devoted to the practice and teaching of surgery.

Syme excelled as a writer as well as a *viva voce* teacher, and excelled in the way that medical men so much affect, and yet so much fail in. He was terse and exact, but destitute of ornament. There are, no doubt, books, espe-

(a) "Memorials of the Life of James Syme, Professor of Clinical Surgery in the University of Edinburgh, &c." By Robert Paterson, M.D., Vice-President of the Royal College of Physicians of Edinburgh, &c. Edinburgh: Edmonston and Douglas. 1874.

cially of the didactic kind, that are best thus written, and Syme was a master of this manner. He, however, was neither dry nor stilted, faults too common with medical writers, and frequently discernible in criticisms. Some reviewers, in fact, have quite the habit of denouncing an easy flowing style as "fine writing," an offence they are themselves incapable of committing. If they would study Syme they would see that, though terse, he was fresh, and therefore, reading his papers did not weary. We should have been glad if his biographer had approached him in this.

Syme was reluctant to admit the merit of novelties—slow to believe; hence, he was not always just to his compeers, as witness the case of acupuncture. If Simpson was not likely to be easily credited by Syme, the same suspicion does not hold good of other operations, and we must therefore admit that Syme did not do full justice to others. This defect in his conduct was only atoned for by the marvellous merit of his own career. It is much to be regretted that two such men as Syme and Simpson should have spent so much of their lives in academic squabbles that tarnish their fame and were unworthy of *alma mater*. Those at a distance probably judge these misunderstandings more severely, and at the same time more justly than those who were in any degree mixed up in them. We should have been better pleased with this biography had it dwelt less upon these matters, and spoke of them more in the tone of Dr. Duns, in his biography of Simpson; but for the other portions of Dr. Paterson's work we are grateful, and his labours will serve to aid some future author to draw a life-like picture of the great Edinburgh surgeon. Perhaps at present it is almost too soon; but no one doubts that Syme will live in medical history as a surgeon and as a teacher of wondrous power; while in the present generation his example and his practice are exercising an amazing influence, which will largely descend to the next; for few who have been under his spell will fail to transmit some of its power to their pupils and successors.

#### MEADE'S MANUAL OF PRACTICAL MEDICINE. (a)

THE contents of the old "Meade's Manual" were grouped under three heads—physiology, pathology, and therapeutics. This arrangement has been retained by the editor of the new edition, but the second part has grown so much that it is as a manual of practical medicine that the work must be judged. The other parts are confessed to be mere sketches. That of physiology may serve the purpose of some students, to look up as they would their notes; but it is almost to be regretted that the space is thus occupied which might be added to medicine. Admitting, however, that the physiology is a good introduction to the medicine, we cannot say as much for the closing part on therapeutics, and we would advise in a future edition, to which Dr. Silver may reasonably look forward, the rejection of this part, which will give him more scope. This brings us to the main part of the book. It is a manual for practice, and a small one; it does not, therefore, profess to be exhaustive, nor to give references. We believe it is fairly accurate, and likely to be useful. Diseases are sketched briefly, and then the treatment is stated. This is laid down somewhat dogmatically—necessarily so, since it would be absurd in such a brief manual to enter upon differences of opinion. We have found as a rule that the treatment recommended is sound and safe, so that the manual may be used as a guide. There are, however, passages of which this cannot be said—thus, at p. 228, under the head "Laryngitis," it is said: "Nitrate of silver is best applied in strong solution (sixty grains to the ounce) by tying a morsel of lint or cotton-wool to the end of a penholder." It is not said what is to be done with the penholder; but the student will presume he is

to dip the armed end into the solution and introduce it into the larynx. Fortunately for the patient, he will not succeed in doing so; but the attempt is dangerous. In these days the method spoken of seems antiquated—not to say barbarous, and we suspect may be a remnant of the old edition which has escaped Dr. Silver's notice.

There are not many blots of this kind in the work, which will be found a very useful manual to many students who possess larger treatises on the subject but desire a portable text-book.

#### PHARMACEUTICAL CHEMISTRY. (a)

CERTAINLY students of pharmacy cannot complain of a dearth of literature devoted to their special wants. Of late years there has been an avalanche of books—good, bad, and indifferent—devoted to pharmaceutical science, and we suppose that the supply has been in answer to a demand. We would classify Dr. Muter's production under the head of good books. The first chapter in the book is devoted to an exposition of the modern theories of chemistry, and we commend it as a lucid, forcible, and concise statement of a subject fraught with difficulties for commencing students.

In the second chapter the practical processes concerned in chemical action are described. In most chemical textbooks the salts of the metals are described under the heads of their basylous radicals; Dr. Muter adopts a very different plan, and one which must greatly assist the student's memory. He treats first of the source, character, means of isolation, and mode of detection of the principal metallic elements, including hydrogen among them. A brief consideration of the compound basylous radicals follows the study of the simple basylous radicals. The simple acidulous radicals are next treated of, and the combination of each of these with the basylous radicals are fully described; by this means the different oxides, chlorides, &c., are compared.

We have said enough to afford an idea of the scope and mode of arrangement of Dr. Muter's work. Tabular matter and bold and striking type are characteristics of the book; the author has evidently been actuated by an earnest desire to lighten the labour and to assist the memory of the student. No book is faultless; but the errors in Dr. Muter's book are not of such magnitude as to call for special censure, except at the hands of very captious critics.

Dr. Muter leads a busy life; as principal of a flourishing school of pharmacy, his every hour is well nigh occupied; we cannot, therefore, withhold our admiration for his capabilities for hard work when we have such an evidence of it as in this book of his. There is about it an air of concentrated energy and uncompromising intensity of purpose which cannot fail to arrest the attention and to enlist the sympathy of every honest student.

## Correspondence.

#### THE PUBLIC HEALTH (IRELAND) ACT.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR

SIR,—The first stage in the working of the new Public Health Bill having been now completed by the selection of the officers, the next is to apportion their salaries, and this has been, I believe, almost universally deferred for a week or two for purposes of consideration, or, possibly, communication with the higher powers.

It is to be hoped that, in the interval, all parties concerned will remember that, as far as the medical officers are concerned, the new duties to be imposed on them are in diametrical opposition to their own interests, and that the more successful they may be in carrying out the objects of the Bill, the worse it will be, not only for themselves, but for every member of the profession in their districts.

(a) "Practical Medicine, with a Sketch of Physiology and Therapeutics," being the Fourth Edition of Meade's "Manual for Students." By Alexander Silver, M.A., M.D., Physician to Charing Cross Hospital, &c. London: H. Baillière. 1874.

(a) "An Introduction to Pharmaceutical and Medical Chemistry." By Dr. John Muter, M.A., F.G.S. London: Published by the South London School of Pharmacy, Keatinge Street, London. Simpkin and Marshall.



In no other instance is a professional man called on to act to his own certain disadvantage for the benefit of the public. We never have heard, and never shall hear, of a lawyer or attorney being employed by the public for the purpose of going about among the people and persuading them to settle their disputes amicably so as to prevent law-suits. Yet this is exactly what the medical officers of health are expected to do under this Bill; for the more they exert themselves to abate nuisances injurious to health the more do they take the ground from under their own feet, and the bread out of their own mouths. And it is not only in this respect that the faithful exercise of their new functions will be injurious to them, because it must of necessity entail upon them the enmity of everyone who is called upon to make any expensive change in the arrangements of his residence, or in the habits of his life, and enmity to a medical man is simply ruin.

Thus, the duties imposed on these officers are calculated to be injurious to them in direct proportion to the efficiency of their performance, and are also in their nature highly invidious and unpopular, circumstances likely to be overlooked, but which imperatively demand the serious consideration of those who are now called on to allot an adequate remuneration to these gentlemen, without whose self-sacrifice and disinterested assistance the Act will be nugatory, and the Bill on which so much time, trouble, and legislative talent has been expended, nothing but mere waste-paper.

Of course, as usual, it may be expected that the guardians will count on the known honour and probity, as well as public spirit of the profession, and on the competition which exists among its members; but in this case they may be reckoning without their host, for they may be perfectly certain that no men will perform invidious and disagreeable duties with either zeal or efficiency if they have reason to feel disgusted with the discouraging idea that their services are not properly appreciated.

Δκπ.

### DR. LYON PLAYFAIR ON HEALTH.

On Monday the Social Science Congress met at Glasgow, the hall being crammed to hear the opening address of Professor Playfair on Public Health. Cleanliness, said the speaker, is allied to health and happiness as much as to Godliness. Scotland must be one of the dirtiest nations in Europe, for its death-rate is very high and is steadily increasing. In the urban and rural districts in the small towns the rate is as high as it is in London. In the large manufacturing towns from eight to nine persons in every thousand die annually in excess of the metropolitan rate. Over the whole country about 125,000 of the population perish every year who would not perish if the laws of health were obeyed. Scotland, he hinted, had barely yet emerged from the groove of thought regarding pestilence, fever, ague, dirt, and general disease which was universal in Europe for many hundred years. When the Egyptian, Greek, and Roman civilisations expired, with their baths and divine maxims about ablutions and purifications, dirt reigned for a thousand years. Not a man or woman in Europe ever took a bath; hence the spotted plagues, the black deaths, the sweating sicknesses, the dancing manias, the mewing manias, and biting manias that ravaged the people and cut off in the Middle Ages one-fourth of the entire population. Religion came to the aid of dirt; the more filthy a saint was the more saintly he was considered. Some of the hermits never changed their clothes, and only combed their hair once a year. St. Anthony never washed his feet, and St. Thomas A'Becket's under garments acquired an additional sanctity from the vermin they contained.

## Medical News.

**Hospital Saturday.**—A meeting in support of this movement was held at Guildhall on Saturday afternoon. The Lord Mayor presided, and, in opening the proceedings, said that the movement must commend itself to every right-minded and right-thinking man. They were all desirous of relieving affliction, and of giving something tangible towards the

alleviation of the suffering poor. It was a fact that many working men did not attend any places of public worship on a Sunday. Saturday, the 17th of October, would be the day on which those men could contribute on behalf of the hospitals. Hospital Saturday had for years been an institution in Glasgow, Manchester, Liverpool, Birmingham, and other large towns. He had been informed that it existed even in Melbourne (hear, hear). Charity, kindness, and benevolence were endless themes to dilate upon—they were the bonds which tied the best of men together, and it was the practice of these virtues which alone made the world enjoyable to live in (hear, hear). Captain Mercier next addressed a few remarks explanatory of the movement to the meeting. He was followed by Mr. George Savage (secretary to the Working Men's Club and Institute Union), who stated that Hospital Saturday had the recognition of the public. There were over 80 hospitals and dispensaries in the metropolis, and the persons annually relieved through their agency amounted to nearly one-third of the population of the metropolis, and their expenses amounted to £600,000 per annum. Mr. Kenny (Labourers' Union) gave statistics of hospital work, and said that last year the hospital revenues left a deficit of £40,000 to be made good. He calculated that there were 750,000 adult workmen in London, and a subscription of one half-penny each per week, which any of them could spare, would produce £80,000 per year. The Rev. Cannon Miller, Mr. E. Gray (Paviors' Council), Mr. Shrivess (Carmen's Association), Mr. Hawkins (Post Office), Mr. H. N. Hoare (treasurer to the fund), Mr. Watkinson (Boiler Makers' Association), Mr. W. R. Petty (an *employé* of the Great Western Railway), and Dr. Vincent Ambler also addressed the meeting.

**The London School of Dental Surgery.**—On Monday afternoon Mr. W. Scovel Savory, F.R.S., presided at the distribution of prizes in the new building of the Dental Hospital, and delivered a lengthy and able address upon the history, progress, and prospects of dental surgery before a crowded and appreciative audience. The prizes distributed were as follows:—Mr. Tomes' prizes: Mr. Hepburn, Mr. Gibbings, Mr. Bryant, and Mr. W. S. Bennett; Mr. Makins' prize to Mr. Pearman; Mr. Turner's prizes to Mr. F. J. Bennett and Mr. W. S. Bennett; Mr. Cartwright's prize to Mr. Bryant. An announcement was also made that a new scholarship in dental surgery had been instituted by Mr. Saunders for competition amongst students of the hospital. Cordial votes of thanks to Mr. Savory and the gentlemen who had given the prizes closed the proceedings.

### NOTICES TO CORRESPONDENTS.

**MEDICAL MICROSCOPICAL SOCIETY.**—The Opening Meeting of the approaching Session of the Medical Microscopical Society will take place at the Royal Westminster Ophthalmic Hospital on Friday, the 10th inst., at 8 p.m.

**THE FEMALE MEDICALS.**—The *Academy* says—"Those who sympathise with the cause of female medical education will be glad to hear that a college has been opened for the purpose in Henrietta Street, Brunswick Square. The premises are very convenient, and there is a large garden in which the dissection-room can be placed, so as to avoid everything disagreeable to the neighbours. The council includes the names of Mrs. Garrett-Anderson, Dr. Billing, Dr. Elizabeth Blackwell, Dr. Buchanan, Dr. Charlton Bastian, Dr. King Chambers, Dr. Cheadle, Mr. Critchett, Mr. Ernest Hart, Mr. Berkeley Hill, Professor Huxley, Dr. Hughlings Jackson, Dr. Murie, Mr. A. Trehern Norton, Dr. Payne, Dr. W. S. Playfair, Dr. Burdon Sanderson, and Dr. Sturges."

**A FORMER PUPIL.**—The age of the late Dr. Jacob was 84, not 85, as accidentally mentioned by the contemporary referred to.

**MR. R. JEX CRICKMER.**—The date of your wonderful experiments and discoveries have been duly noted in our diary. Should the world hereafter decide upon erecting a suitable memorial we shall be proud to supply particulars.

**ACCIDENTS.**—A little pamphlet has just been issued by the Accident Insurance Company, which, in view of the many accidents of recent occurrence, has a peculiar interest. We give a few comparative statistics showing the number of compensated cases during the last two years: The horse accidents are 361 as against 321 in the previous year; business accidents 245 as against 237; house accidents 147 as against 141; field accidents number the same as last year, 44; street accidents have been fewer, only 87 as against 113 in 1872. A slight increase in the number of railway accidents appears—viz., 89 as against 35; tramway accidents were for the first time developed in the list for 1872 in 2 cases; this year there are 5; cricket accidents have been more numerous, while a general average amount of compensations seems to have been paid for the many other casualties through cattle, dogs, cats, rats, ferrets, fowls, fire, machinery, boating, football, shooting, &c.

### BOOKS, PAMPHLETS, AND MEDICAL JOURNALS RECEIVED.

The West Riding Asylum Medical Reports. Vol. IV.

On the Right Use of Disinfectants. By Henry Letheby, M.B.

A Microscopical and Chemical Examination of Certain Waters. By Jabez Hogg and Dugald Campbell.

Bad Wildungen und Seine Miner Alqueellan. Hamburg.

Notes on Physiological Chemistry. By G. W. Moore. London: Smith, Elder, and Co.  
Annual Report of Health. By Dr. Dendfield.  
Boston Medical Journal. British Journal of Dental Science. The Monthly Microscopical Journal. The Psychological and Medico-Legal Journal. Medical Temperance Journal. Journal of Mental Science. The Obstetrical Journal. Westminster Review, &c., &c.

#### VACANCIES.

Ballyshannon Union, Kinlough Dispensary District. Medical Officer. Salary, £100 per annum, exclusive of fees. (See Advt.)  
Mohill Union, Ryann Dispensary District. Medical Officer. Salary, £120 per annum, exclusive of fees. (See Advt.)  
Stranorlar Union Dispensary District. Medical Officer. Salary, £100 per annum, exclusive of fees. Applications to be addressed to Mr. Gunning, Hon. Sec. (See Advt.)  
University College, London. Professorship of Comparative Anatomy and Zoology. Full information of Mr. Robson, at the College.  
St. Marylebone, London. Medical Officer for the Christ Church District. Salary, £230 per annum. Application to be made to the Clerk, at the Union Office.  
Dental Hospital of London. Dental House Surgeon. Salary, £40 per annum. Hours, 9 till 2, daily. Applications to the Hon. Sec.  
Parish of Lambeth, Surrey. Resident Medical Officer and Dispenser for the parish Infirmary. Salary, £100, with board, &c. Candidates should address the Clerk to the Guardians at the Union Offices.  
Stockwell Fever Hospital. Assistant Medical Officer. Temporary only, at £3 per week, with board and lodging. Candidates must present themselves before the Committee, at the Hospital, on Friday next, at 3 o'clock.  
Ramsgate Dispensary. Resident Medical Officer. Salary, £100, with furnished apartments. Applications to the Secretary.  
Tunbridge Wells Dispensary. House Surgeon. Salary, £100 per annum, with board and lodgings. Applications to the Secretary.  
Martley Union. Medical Officer for No. 4 District. Salary, £85, with fees extra. Applications to Mr. Knott, Solicitor, Worcester.  
West Bromwich Hospital. House Surgeon. Salary, £50, with board and residence. Address the Secretary.

#### APPOINTMENTS.

ARMSTRONG, H. G., M.R.C.S., House Surgeon to the Royal Berkshire Hospital, Reading.  
CUNNINGHAM, J., L.R.C.P. Ed., L.R.C.S. Ed., Medical Officer for the West District of the Belford Union Workhouse, Northumberland.  
DUNLOP, WM., L.R.C.P. Ed., L.R.C.S. Ed., Medical Officer of the Union Hospital, Consulting Sanitary Officer for Letterkenny Union.  
FAOGE, H. W., M.R.C.S. Ed., Medical Officer of the No. 1 District and the Workhouse of the Lutterworth Union.  
GRAMSHAW, F. S., M.D., Medical Officer for the Stillington District of the Easingwold Union, and Medical Officer of Health for the Stillington Sub-district of the Easingwold Rural Sanitary District.  
LAWTON, M., L.R.C.P. Ed., L.R.C.S. Ed., a Medical Officer for the Midleton Dispensary District of the Midleton Union, co. Cork.  
MIDDLETON, W. H., L.R.C.S. I., L.K.Q.C.P.I., Medical Officer to the Westmeath County Infirmary, Mullingar.  
MOORE, E. W., L.R.C.P. L., M.R.C.S. E., Medical Officer of Health for the Twickenham Urban Sanitary District.  
PARRY, T. S., M.R.C.S. E., Resident Medical Officer's Assistant and Senior Clinical Assistant to the Brompton Hospital for Consumption.  
SHAW, R., M.B., C.M., Parochial Medical Officer and Public Vaccinator for Dailly, Ayrshire.  
STEWART, D., M.B., L.R.C.S. Ed., House Surgeon to the Blackburn and East Lancashire Infirmary.  
WHITE, W. L., M.B., C.M., House Surgeon and Superintendent to the Southport Convalescent Hospital and Sea-bathing Infirmary.  
WIBLIN, J., L.R.C.P. Ed., F.R.C.S. E., Medical Inspector of Passenger Ships at the Port of Southampton.

#### Marriages.

BROOKHURST-GREAVES.—On the 30th ult., at St. John's Church, Hackney, T. H. Brookhurst, M.R.C.S., of Holmes Chapel, Cheshire, to Caroline Mary Edith, eldest daughter of the late G. Greaves, F.R.C.S., of Manchester.  
FENTON-MARRIOTT.—On the 20th ult., at St. Michael's Church, Coventry, Mary Anthony Fenton, M.D., of Stranahely, co. Wicklow, to Martha Jane, eldest daughter of James Marriott, Esq., J.F., of Coventry.  
STEVEN-JACOBSON.—On the 29th ult., at St. George's, Hanover Square, W., Alexander Steven, M.D., of Glasgow, to Alice Woolf, second daughter of N. W. Jacobson, Esq.

#### Deaths.

BLACSTONE.—On the 1st October, at 1 Gloucester Road, London, N.W., Joseph Blackstone, M.R.C.S., aged 73.  
HUNT.—On the 2nd September, Richard T. Hunt, M.R.C.S.E., of Disley, Cheshire.  
LOMAX.—On the 16th September, H. I. Lomax, L.R.C.P. Ed., of Chaddle, Cheshire, aged 62.  
MANN.—On the 21st September, C. W. Mann, M.R.C.S.E., of Bridlington Quay, aged 63.  
ROBINSON.—On the 21st September, C. H. Robinson, M.D., of Stockport Road, Manchester, aged 32.  
TATE.—On the 23rd September, at Ruyton Lodge, Fareham, Hants, George Ralph Tate, M.D., late Royal Artillery, aged 39.  
TROTTER.—On the 2nd October, at 58 Old Elvet, Durham, John Trotter, M.D., in his 70th year.

**MEDICAL—WANTED,** an ASSISTANT to the APOTHECARY PROFESSION of two or three years' standing, who understands the Compounding and Dispensing of Physicians' Prescriptions.—Apply to ALEX. BRIN, Armagh.

**IRISH PRACTICE.**—A Medical Gentleman can be secured in a PRACTICE unopposed in one of the most picturesque parts of Ireland. Appointments about £250 per annum. Large convenient House, Offices, walled-in Garden, and from two to fifty acres of land, as may be agreed upon. House and portion of land can be purchased (or rented).—Address D. Y., 23 Ely Place, Dublin, where an interview can be had.

**TO MEDICAL MEN, DENTISTS, &c.**—The Widow of a professional man wishes to let a Dining-room Floor (two reception rooms) in a superior house a few doors from Russell Square.—63 Guilford Street, London, W.C.

**IRISH PRACTICE.**—A Medical Gentleman can be secured in an easily worked Practice, realising at present £300 a year, but which can be immediately doubled. Good house, office, &c., at low rent. Satisfactory reasons for present Incumbent leaving. Terms moderate.—Apply MEDICUS, 23 Ely Place, Dublin.

#### MOHILL UNION.

##### RYNN DISPENSARY DISTRICT.

The COMMITTEE of MANAGEMENT of the Ryann Dispensary District will, at a Meeting to be held at Tarnaght Dispensary on TUESDAY, the 20th OCTOBER, 1874, at 12 o'clock, proceed to elect a properly-qualified

**MEDICAL OFFICER** for the District, at a Salary of £120 per annum, exclusive of Registration and Vaccination Fees.

Applications, with Testimonials, &c., to be forwarded to me on or before 12 o'clock on the above-named day.

Personal attendance of Candidates will be required on the day of Election.

By order of the Committee,

FRANCIS GEARTY, Hon. Secretary.

Finloughla, Dromod, 29th September, 1874.

#### BALLYSHANNON UNION.

##### KINLOUGH DISPENSARY DISTRICT.

The COMMITTEE of MANAGEMENT of the above Dispensary District will, at their Meeting on 8th OCTOBER next, at 3 p.m., proceed to elect a properly-qualified

**MEDICAL OFFICER** for the District, in room of JOHN WELSH, Esq., M.D., resigned, at a Salary of £100 per annum, exclusive of Vaccination Fees.

Applications, accompanied by Diplomas, &c., will be received by the Hon. Sec., R. St. G. Johnston, Esq., Portmarnon, Ballyshannon, up till 10 a.m. on the above day.

Personal attendance of Candidates required.

By order,

J. B. CHISEN, Clerk of Union.

September 26th, 1874.

#### STRANORLAR UNION.

##### STRANORLAR DISPENSARY DISTRICT.

**MEDICAL OFFICER WANTED.**—In consequence of the resignation of Dr. WALLEN, the Managing Committee of the above district will, at an ordinary meeting to be held at the Workhouse of the said Union on MONDAY, the 12th day of OCTOBER next, proceed to elect a MEDICAL OFFICER, at the Salary of One Hundred Pounds per annum, exclusive of Registration, Vaccination, and Sanitary Fees.

Application from Candidates, with Testimonials showing that they possess the qualifications prescribed by the regulations of the Local Government Board, will be received by me up to 12 o'clock that day. Candidates to be in attendance on the day of election.

The Medical Officer will have to reside at Stranorlar.

By order of the Committee,

JOHN GUNNING, Hon. Secretary.

**DUBLIN INFIRMARY for DISEASES of the EYE and EAR, Ely Place.**

#### Ophthalmic and Aural Surgeon:

ARCHIBALD HAMILTON JACOB, M.D. Dub., F.R.C.S., Ex-Ophthalmic and Aural Surgeon to the City of Dublin Hospital.

#### Consulting Physician:

EVORY KENNEDY, M.D. (Hon. Caus.) T.C.D. and Edin., Fellow and Ex-President King and Queen's College of Physicians.

#### Consulting Surgeon:

GEORGE H. PORTER, F.R.C.S.I.; M.Ch. T.C.D. (Hon. Caus.), Surgeon in Ordinary to Her Majesty the Queen in Ireland; Fellow and Ex-President, R.C.S.I.; Senior Surgeon to the Meath Hospital.

#### Obstetric Physician:

JOHN CRONYN, M.D., F.R.C.S., Examiner in Midwifery, Roy. Col. Surgeons; Ex-Assistant Physician Rotunda Hospital.

Work, Income, and Expenditure for Twelve Months, ending June 30, 1873.

Annual number of Dispensary patients	...	...	729
Number of visits paid by such patients	...	...	5,847
Number of patients within the Infirmary	...	...	134
Number of operations performed	...	...	163
Total gross expenditure per bed per annum	...	£27	15 0
Average expenditure per intern patient	...	1	10 6

The Infirmary is wholly dependent on private benefactions, and is in debt to the Medical Officer. SUBSCRIPTIONS ARE EARNESTLY REQUESTED

# The Medical Press & Circular.

"SALUS POPULI SUPREMA LEX."

WEDNESDAY, OCTOBER 14, 1874.

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## Original Communications.

### ON THE SCIENTIFIC AND EMPIRICAL INVESTIGATION OF EPILEPSIES. (a)

By J. HUGHLINGS JACKSON, M.D., F.R.C.P.,  
Physician to the Hospital for the Epileptic and Paralyzed, and to the London Hospital.

#### CHAPTER I.—PART I.

##### INTRODUCTORY.

So many books have been written on epilepsy that it may seem rash to add another; but, as I have studied epilepsy, epileptiform seizures, and many other diseases of the nervous system for some years with great care and labour, there is no impropriety in putting forward some of the conclusions I have arrived at. I have, however, already written so very many papers on the subject that

(a) This and subsequent chapters to be published in this journal are the introductory chapters of a forthcoming work on Epilepsy.

I must, to prevent misunderstanding, at once remark on one matter which will be considered more fully towards the end of this chapter, and at great length in future chapters. Throughout this book the functions of the Cerebral Hemisphere are assumed to be the Co-ordination of Impressions and Movements. The co-ordinations which the very highest centres in the hemispheres effect are only in great degree different from those of the lowest nervous centres. This does not exclude the other so-called "functions" of the cerebral hemisphere, "ideation," "consciousness," &c. Sensori-motor processes are the physical side of, or, as I prefer to say, form the anatomical substrata of, mental states. It is with these substrata only that we are directly concerned in an inquiry like the present.

For some years I have held the view above stated—viz., that the whole of the cerebrum is, like lower centres, made up of processes representing impressions and movements. I have stated it in innumerable places, especially with regard to Speech. I consider that this view accords with and is confirmed by the results of the now well-known experiments of Hitzig and Ferrier. With regard to Speech, Ferrier has recently, by independent investigation and from a different kind of evidence, come to conclusions essentially like mine.

what I am now about to write will, in essential matters (method and main conclusions), be a recapitulation. But this, assuming that what I have to say on epilepsy has any importance, is almost a sufficient reason for writing a book about it. The papers written during more than ten years are inconveniently scattered in volumes of Reports, in Journals, &c. Again, the work I have done on the subject is to be found in papers where many would never, from the titles of those papers, look for it. This has been the result of my way of investigating. I have studied epilepsy and epileptiform seizures on a novel method, and have written on it from widely different points of view. Besides studying in minute detail such cases as would ordinarily be called idiopathic, or true epilepsy, I have sought out for study simpler cases, or, let me say, until I give my definition of epilepsy, cases of epileptiform convulsion, and especially those complicated with other definite nervous symptoms. For I have long been convinced that "idiopathic epilepsy" is far too difficult a subject for precise investigation unless we approach its consideration from the basis supplied by the principles deduced from less complex kinds of cases. Hence the simpler cases of partial convulsion occurring with affections of the optic nerves, with hemiplegia, with disorders of speech, &c., have had particular interest for me. These "complicated" cases are really very much simpler than are cases of "idiopathic epilepsy." Thus it happens that perhaps the most decided of my opinions are to be found expressed in papers, in the heading of which the word "epilepsy" or "epileptiform" does not occur, or in which it is mentioned only incidentally. I will illustrate this—in itself a very small matter—by references to several old papers, in order to show more clearly my manner of investigation, and to give an apology for the peculiar defects of it. Unless this work is a total failure the defects are partly counterbalanced by some advantages. A further reason for these references is that, as my method is unfamiliar, and as probably it may seem to those who have worked at epilepsy under the accepted definition, vague and unreal, the extracts to be given will show that the opinions I have to express have, at any rate, not been formed hastily. On the contrary, there has been a very gradual development, and, of course, change of,

opinion. Many expressions used in the extracts from former papers I should not use now.

In an article on "Loss of Speech" ("Lond. Hosp. Rep.," vol. i., 1864), after stating that we may investigate the relations of affections of Speech to disease of one side of the brain in cases of unilateral convulsions (epileptiform seizures), as well as in cases of unilateral palsy (hemiplegia), I draw attention to the association of right-sided epileptiform seizures (without loss of consciousness) with temporary defect of speech. I then advance the hypothesis that these seizures depend on disease in the same region of the brain (that of the middle cerebral artery), as does permanent loss of speech with right hemiplegia. In other words, the Localisation is in the same region for both sets of symptoms. And I further suggest that the Pathology of these cases of unilateral convulsion is a local change (in the vascular district mentioned), resulting from embolism, as the pathology of cases of loss of speech with hemiplegia often is. In one (to employ more recent terms) the embolic process has led to *destruction* (softening) of nervous matter; in the other, to *instability* of grey matter. (a)

This, indeed, is almost the starting point of my special investigations of Epilepsy. Previously I had accepted what was then, and is still, the almost universal opinion that there is a grouping of symptoms presented paroxysmally, to be called Epilepsy, or "Idiopathic Epilepsy," and that the morbid changes causing this Clinical Entity are in the medulla oblongata. But it occurred to me to study those simpler cases of convulsion (regardless whether they satisfied the definition of "true epilepsy" or not) which begin in, and chiefly affect, *one* side of the body, and to study them in comparison and contrast with a unilateral paralytic symptom (the common form of hemiplegia), which was *known* to be owing to disease of the corpus striatum. This comparison was made in a paper in the *Lancet*, Feb. 16, and March 9, 1867—"Note on the Comparison and Contrast of Regional Palsy and Spasm."

A case of paralysis of the face, arm, and leg, with turning of the head and two eyes from the side on which the limbs were paralysed, is compared with a case in which the face, arm, and leg were convulsed, and the head and two eyes drawn to the side convulsed; in the former there was disease of the corpus striatum (the thalamus was a little involved, too), and in the latter there was disease of convolutions near to the corpus striatum. One was supposed to be Corpus Striatum Paralysis, the other Corpus Striatum Convulsion. Hence, not only the conclusion that unilateral convulsions are owing to disease of one side of the brain, but that they are owing to disease of the brain in a particular vascular region (the region of the middle cerebral artery).

I ought here very prominently to acknowledge my great obligations to Dr. Broadbent's now well-known hypothesis as to the mode of connection of the bilaterally acting muscles with the corpora striata, by which he explains the escape of these muscles in hemiplegia. This hypothesis was of vast importance to me in working out the relations of hemiplegia to convulsions beginning unilaterally. In

(a) The following quotation may be given from the article mentioned in the text. I would remark before I give it that at the time I wrote I believed unilateral convulsion to be owing to discharge of the corpus striatum, and that the disease which led to that discharge lay in some part of the district of the middle cerebral artery, and I believed too the immediate cause of the discharge of the corpus striatum to be spasm of the arteries supplying that centre.

"We may investigate the subject in unilateral convulsion as well as in unilateral paralysis. There is sometimes temporary defect of speech with hemiplegic epilepsy, just as there is permanent defect of the faculty with decided hemiplegia. Now, I do not assert that epilepsy is due to disease of the middle cerebral artery, or of the pia-mater in the range of that vessel—its vascular expansion—but I submit that one particular form of epilepsy is. Perhaps a better expression would be epileptiform convulsion."—"Loss of Speech: its Association with Valvular Disease of the Heart, and with Hemiplegia on the Right Side—Defects of Smell—Defects of Speech in Chorea—Arterial Regions in Epilepsy,"—*London Hospital Reports*, vol. i., 1864.

the paper referred to it was pointed out that Broadbent's hypothesis accounts not only for the escape of the bilaterally acting muscles in hemiplegia, but for their involvement in hemi-spasm. Broadbent's hypothesis is confirmed by Ferrier's researches.

Although the method just illustrated seems simple to me, I find it very difficult to convince other persons that it is simple. In spite of my reiterations that I am seeking the particular cerebral centres discharged in cases where any kind of grouping of symptoms is presented paroxysmally, I find that I often give the impression that I am working only to find the seat of but one grouping, viz., "epilepsy," as authorities define that disease,—that I am working only to find the seat of a disease in which there occurs paroxysmally loss or trouble of consciousness, with or without convulsion. A quotation from a more recent paper will show that my object has not been so limited ("St. Andrew's Medical Graduates' Reports," vol. iii., 1870). After speaking of a case supposed to be carefully investigated on its own merits, I remark: "We do not care to say that a tumour of the brain (or minute changes near it) had 'caused epilepsy,' but that changes in a particular region of the nervous system—say in the region of the left middle cerebral artery—led to convulsions in which the spasm began in the right hand, spread to the arm, attacked next the face, then the leg, &c."

Dr. Eugène Dupuy, in his interesting monograph entitled "Examen de Quelques Points de la Physiologie du Cerveau," says: "Before describing our researches apropos of Ferrier's experiments, we will remark that the idea put forward by Wilks, (a) Hughlings Jackson, (b) and others, of localising epilepsy in the cortical layer of the brain is not new. It is to be found in the memoir of Boucher and Cazauvielh (c). It will be shown further on that this theory is unsustainable."

Whether the theory be sustainable or not I do not discuss for the present. I wish to point out that my aim has not been merely to find the seat of "Epilepsy" in the sense in which that term is generally used. At first it was simply to localise the seat of one comparatively simple set of symptoms presented paroxysmally. It was in 1864 (d) to find the exact results of discharge of parts in a particular region of the brain, regardless whether the paroxysm caused by that discharge was genuinely epileptic or not. More recently, as will be seen, I have used the word Epilepsy as a name for any set of symptoms, sensory or motor, dependent on abrupt and excessive cerebral discharges (paroxysmal discharges). The symptoms

(a) Wilks, "Guy's Hospital Reports," 1866, p. 225, vol. xii., 3rd series.

I will here quote part of what Dr. Wilks has written on the subject, to which Dr. Dupuy refers. I requote it from my article on Convulsion, "Reynolds's System of Medicine," vol. ii., 2nd edition. Wilks says ("Pathology of Nervous Diseases," "Guy's Hospital Reports," 1866) that "the morbid conditions which we find to give rise to epileptiform convulsions are remarkably uniform. They all point to the presence of local irritation of the surface [of the brain]." Speaking of a case of epileptic convulsions in a patient who had tumour in the pons varolii—a case which had been supposed to confirm Schröder van der Kolk's "supposition that the cause of epilepsy is seated in this part"—he says: "I have no hesitation in saying that for one such case fifty might be found in which the marked changes producing these symptoms occupy the surface [of the brain]."

(b) Hughlings Jackson, "West Riding Lunatic Asylum Medical Reports," vol. iii., p. 315, and "Reynolds's System of Medicine," article "Convulsion."

(c) Boucher et Cazauvielh, "Archives de Médecine," Paris, 1825.

(d) It would be only an exaggeration to say that at one time (1864 and some while after) I *did not care* about the seat of the lesion in cases of "genuine epilepsy." Writing about three years later (1867) in the paper on "Regional Palsy and Spasm," referred to in the text, I said: "But I fear *genuine epilepsy* is at present an *insoluble problem*. I would begin, as I have suggested, with a simpler kind of convulsion. I would try to find what condition of nervous matter in one part [of the nervous centres] permitted occasional spasm of the muscles which that part empowers; and I choose the corpus striatum, as we do know, from its frequent damage in hemiplegia, what muscular regions it governs."

usually grouped under the name "Epilepsy" constitute one, but only one, of many groupings of symptoms which I hope we shall be able to localise in different parts of the "cortical layer" of the brain.

The great object I have had in view, as the extracts show, has been to study the relations of epilepsy or epileptiform seizures to simpler diseases of the nervous system, and *through the latter to normal states*. For example, returning to an old illustration, paralysis of the face, arm, and leg (hemiplegia) points to destruction of or of part of the corpus striatum, and my inference is that mobile conditions of the face, arm, and leg (an epileptiform seizure in which these parts are convulsed, or irregular movements of them as in hemichorea), are owing to nervous discharges in the very same cerebral region—discharges of convolutions *near to* the corpus striatum. This is really the study of cases as *departures from healthy states*. For hemiplegia may, for this purpose, be properly regarded as an experiment made by disease revealing to us the external parts represented in the healthy corpus striatum. It shows that the corpus striatum contains nervous processes for the movements of the face, arm, and leg. The unilateral convulsion and the hemichorea are over-developments of such movements which are lost in the quasi-experiment of hemiplegia.

This is just the opposite of the ordinary method of investigating epilepsy and epileptiform seizures. The question commonly put about a case is solely "Is it a case of epilepsy?" or "Is it only an epileptiform seizure?" In other words, cases are often investigated solely in order to see if the symptoms reach or approach certain Clinical Entities, and not at all as they are signs of *departure from health*.

I may here quote again from an old paper already referred to ("Roy. Lond. Ophth. Hosp. Reports," 1866):—

"We want positive information as to how a convulsion is a *departure* from health of muscles and muscular groups (a) and health of nervous organs and tissues, and not as to how far it *approaches* our idea of the almost metaphysical conception 'genuine' Epilepsy. . . . There are to be found on record scarcely any positive statements of what has really happened in particular convulsive paroxysms—a process which sometimes occurs under our very eyes. I am fully aware that there are admirable accounts of the worst fits as types, but some of these accounts are descriptions more of dramas of great human interest than calm and cold scientific observations in an orderly sequence of the outward phenomena of an inwardly suffering nervous system."

I have more to quote to the same effect regarding the localisation of one simple set of symptoms presented paroxysmally as an illustration of my method. In an article on "Defects of Sight" "Roy. Lond. Ophth. Hosp. Reports," vol. v., pt. 4, 1866, I found myself constantly obliged to speak of the investigations of Chronic Convulsive (Epileptiform) Seizures. For example, p. 268, when speaking of cases of Optic Neuritis, complicated with Convulsions, beginning unilaterally, I urge the study of these mobile muscular disorders, regardless of the vested rights of clinical entities.

"Such a kind of work will be more hopeful than working at cases of amaurosis, as they are 'complicated' by the entities 'Epilepsy,' 'Paralysis,' or 'Chorea.' There are, very fortunately, cases in which the symptoms of unilateral muscular disorder refuse to be classed as either unilateral epileptiform seizures, or unilateral paralysis, or unilateral chorea. These cases are, I hold, of extreme value in leading to an organisation of our knowledge of altered physiological conditions higher than an arrangement of symptoms in groups, as epilepsy, chorea, &c.

(a) As will be seen in a later Chapter (on Classification), I do not now object to Clinical Entities for practical purposes. I now admit that they are absolutely necessary. But I object just as strongly as ever I did to the claims of those investigations to be considered Scientific whose aim is only to determine whether a case be or resemble one of "genuine epilepsy." Such investigations are very valuable, but they are Empirical only.

Ophthalmologists will be the last to purposely put amaurosis in association with the abstractions we call 'genuine epilepsy,' 'real chorea,' &c., when it is at all possible to avoid doing so."

As further references to past and scattered work on my subject, I may mention that in the article in the "Ophth. Hosp. Rep.," already quoted from vol. v., pt. 4, 1866, the occurrence of temporary coloured vision, and of other temporary defects of sight in association with unilateral convulsion is considered. In another article (vol. vi., pt. 1, April 2nd, 1868) is an expression of an opinion on that temporary loss of sight which I now call Epileptiform Amaurosis, and used to call Epilepsy of the Retina. (a)

A recent writer, after giving a very brief account of some of my opinions on epilepsies, concludes by saying that most physicians would not admit that the cases I speak of are really cases of epilepsy, because there is in many of them no loss nor trouble of consciousness. If he had said that I was not justified in using the word epilepsy in a new sense I could not have objected to his criticism as criticism. I repeat that epilepsy, as authorities define it, is but *one* of the grouping of symptoms which I believe to result from nervous discharges of parts of the cerebral hemisphere. It is but one of the group which I call epilepsies. Whether consciousness be lost or not, or whether it be lost early or late in an epilepsy, as I define epilepsy, depends on the seat of the "discharging lesion." Cases in which loss of consciousness is the first symptom are cases in which discharge *begins* in the highest centres (in the anatomical substrata of consciousness).

(To be continued.)

## THE INFLUENCE OF SOCIAL AND SANITARY CONDITIONS ON RELIGION. (b)

By HENRY W. ACLAND, M.D. Oxon., M.D. Dub.

Regius Professor of Medicine in the University of Oxford, President of the Medical Council.

FROM the wide subject before you, three points only will be selected for consideration—the basis and aims of sanitary science; the national application of sanitary science; and the share which ministers of religion can take therein. Whatever hypothesis social or sanitary science may advance as to the relations and conditions of man as part of the universe, science can never alter the principles, be they called human or be they divine, on which Christian practice is founded, the principles of universal justice and love. These principles demand in their very nature that by every means and in every direction science should, without ceasing, seek further to alleviate the mental and physical suffering which, by inexorable law, oppresses all conscious life on the earth, and has, as far as we know, oppressed it from unmeasured and perhaps immeasurable time. Science has this in common with religion, that it seeks more to know than to explain. It is ever learning what are the laws which constitute what we call "Nature," in this vast system of conservation, of change, and of dissolution. It admits that almost every individual, animate or inanimate, exists by the destruction or alteration of some other individual entities; and as regards man, science is engaged, among other tasks, in the effort to discover how to guide those vast physical forces which surround him, and how to help him to observe rules by which his physical and his moral welfare may be most fully secured. But, after all, man feels still, as ever, his feebleness. Who now, more than

(a) In passing, I would remark that those cases of migraine with temporary hemipia and other visual troubles (recently well described by Latham and Liveing) are the most important cases of this class.

(b) An Address delivered at the Brighton Congress, Friday, October 9, 1874.



in the infancy of our race, can watch the fury of the elements as they dash on an iron-bound coast; look abroad on the immensity of space, as men looked out of old in the days of superstition and ignorance, on the starry night; weigh the significance of the instincts and habits, the sagacity, affections, and passions of the brute creation, and then say that modern knowledge, astounding though it be, has yet solved the mystery of our state, or has shown man's independence of the general order of the world about him? Will he not say now, as ever, both that the physical and sanitary conditions which surround us must *eternâ lege*, whether we can read them or no, have a definite relation to our moral nature—and also that, in some sense understood or not understood, “not a sparrow falls to the ground but is known to our Heavenly Father”—falls in obedience to laws fixed from the beginning; all form, all matter changing—law alone abiding for ever. To consider, therefore, social and sanitary conditions in relation to religion is practically to affirm that we believe the unity of the laws and arrangements under which man, conscious and responsible man, lives on earth. All who hold this belief can but wonder that men of power, contemplating the phenomena of human existence, should ever dissociate material from mental science—should seek to depreciate the marvel, and despise the requirements of our bodily frames, which, after all said, are the temples, foul or fair, of the spirit dwelling within them. Such and kindred thoughts seem to me to lie at the foundation of the thesis you have proposed for your discussion to-day. Of that thesis the “social” portion must be set aside, to give our few minutes to questions immediately bearing on the relations of health and religion. Habitual intemperance, habitual uncleanness, unchastity, unhealthy dwellings, inadequate food, luxury—all that depresses, all that pampers the body, all that enfeebles the harmonious action of the mental faculties, has to be opposed equally by the physician and the moralist. If it is become a truism to say that vicious, self-indulgent men, however they became what they are, are less capable of physical and intellectual exertion, and of moral or religious exertion, and of moral or religious excellence than they would have been had they lived in virtuous habits of self-restraint, or in refined habits without enervating ease; so also it is not less a truism that preventible material conditions lead to states of the nervous system which promote intemperance and other vices, from which persons living in the open air and in active exercise, though otherwise in a state of want, are nearly exempt. Without further argument, then, this may be assumed, that ministers of religion, as such, and for their special functions, are interested in the physical health of their flocks. The question, it is to be presumed, to be considered by this Congress is rather how far ministers can, with prudence, share directly in the measures which have to be publicly taken for the public health; or how far the division of labour necessarily incident to “civilisation” requires that the clergy in general should be less rather than more occupied with the temporal condition of the people, leaving all measures for the prevention, as well as the cure of disease, strictly to the profession of medicine. I believe that this necessary law of “division of labour” should not here be trenchantly applied. It is a question of time and place, of degree and discretion rather than of kind. There are vast districts in Scotland and Ireland, in India and the colonies, in which it would be simply idle to expect that the medical officers can wisely dispense with the intelligent support of any good and educated minister of religion willing and able to aid them. Now national health and sanitation are terms on the lips of everyone. Sound national health has been said to be that physical condition of a nation which enables the individuals composing it to discharge rightly their respective functions in the state. The statesman, for instance, ought to be in training for the intellectual and social work of his high office; the artisan, the soldier, the abstract thinker, each for his. Sanitation is the attempt to influence for good, by all known methods, the factors which bear on the national health; to promote education

in its truest sense, physical, intellectual, moral; to teach men wisely to work and wisely to play; to make noxious occupations as harmless as they can be made; to hinder men from overtly or secretly poisoning for their own advantage their neighbours' dwellings, air, food, or drink; to show how one form of power or skill, mental or bodily, may be developed without detriment to the higher or general faculties of the man; to endeavour to abolish not only things hurtful, but to limit the abuse of things harmless, or even of things beneficial when moderately employed. Three illustrations out of many will at once occur to you—(1) excessive hours of labour; (2) abuse of alcoholic liquors; (3) uncontrolled spread of diseases originating in preventible ways, and spreading by preventible infection. They are all grave questions, not only for the physiologist, but for the moralist and for the patriot. To discover what manner of life in the several classes of man and of woman, what labour, what recreation, what personal habit of body, what education—nay, what alliance in marriages conduce most to that tone of the nervous system, personal or inherited, which shall put the nerve power of each citizen at the best for the discharge of his public or of his private duty, and how far the state should endeavour to regulate these, are truly prime questions for the modern statesmen. Be assured no vicious man, nor drunkard, nor gambler, still more no masses of such men, can be useful or safe citizens in a free state. Vice makes men feeble. Feebleness makes them irritable. Irritability makes them selfish. Some may, I fear, consider that these observations are, in a grave sense, political, rather than, in a practical one, sanitary. But it is not so. The key to sanitary science is to be found in a full apprehension of its entire aims. The day ought now to be past for discussing the necessity of sewers, sewage irrigation, and kindred topics. Men have perished by hecatombs because of the scant knowledge of builders, architects, and town councils. An able physician, and an admirable and cultivated clergyman (well known to many of you) died but the other day from such preventible causes. That no city, no private houses, when saturated with unremoved filth, are healthy, is now as freely admitted as that personal filth, or drink, or vice engender disease. The clergy and public should remember that this elementary knowledge was taught in great detail three thousand years ago to the Israelites, as they passed along the Wadys that wind round the foot of Mount Sinai. This teaching has been too often forgotten by ascetic religionists anxious to mortify the bodies of men, which they ought to have held as soldiers, in discipline for the good fight, not in subjection, as enemies to be trodden down. Two main principles have to be borne in mind in practically dealing with this subject—(1) that the care of personal health depends mainly on the individual; (2) that the care of national health depends mainly on imperial and local administration. It is clear that in both these two categories a body so influential in a nation as the ministers of religion can effect much. Individuals can be taught what conduces to their physical well-being; and a clergy skilled in doing this, through the schools, the pulpit, and by personal influence, can, in our country, largely aid the intelligent efforts of the members in both Houses of Parliament, and especially, I venture to say, of the House of Peers. That august body contains the heads of the National Church. Whose practical knowledge should better disclose the wants of the denser populations than that of your archbishops and your bishops? Whose voice can better cheer on their way the grave and large-hearted men whose chief pleasure is the welfare of their country, and who feel that they hold their high estate as stewards of her people's good? Who, when natural science is part of a high education, more fitly proclaim the true relations of body and of soul? A few words more on the special relation of these two points to ministers of religion, and my task, however imperfectly, will be fulfilled. A knowledge of how to regulate our personal health as individuals involves a variety of considerations. Abstractly,



knowledge of the structure of the body is desirable for all. Abstractedly, therefore, human physiology should be a necessary subject of early education in schools. But after all said on that head, it is doubtful whether men's instincts, acting with a pure conscience, are not an adequate guide to personal health. The essence of the thing lies in cleanliness, morality, and order. If the instinct of boys, their self-respect, self-restraint, pure conscience, healthy homes, and good mothers are of no avail for good conduct, it is indeed a question whether the knowledge of the constituents of diet, or of the relations of waste to supply in the combustion of the human body will make them temperate in satisfying their natural appetites. But the second subject, that of promotion of national health as a part of national capital, stands on wholly different grounds. With the best possible intentions, and with the highest personal morale, the masses of the population in this country cannot live healthy lives. Reflect, for instance, on the conditions requisite for healthy habitations and the means of providing them in our great towns or our country districts. There are rural districts in these islands where the dwellings have no floors, no chimneys, no privies. There are alleys and streets in our towns where the poor are crowded into rooms without requisite space, or air, or light, or separation of sexes. Now, the poor cannot command capital or soil, or erect adequate dwellings. How are these to be obtained? Are the owners of the soil to be forced by the State to give sites, and the owners of house property to be compelled to give adequate space, or forfeit their property? Who shall decide what is adequate? Where draw the line of State interference with private liberty? In promoting all administrative measures the clergy are, as has been stated, immediately aiding the moral and religious progress of their flocks; and they may be assured that as long as they do not profess technical medical knowledge they are as well qualified by general education as any other citizens, and should be more able than most men to take an enlightened part in local sanitary affairs. They might follow attentively the course of sanitary legislation, read the chief reports which bear on the public health, and assist with their great insight the efforts of their local medical officers, when they are satisfied of their practical utility, for the well-being of all who need their help. Much as this Government has yet to do, recent legislation has made possible all the sanitary machinery that is required for the country. The central authority has power to provide every officer that is needed for its complete work. Every spot in the country can, if it will, obtain competent help. The principles on which sanitary science depends can be discovered only by those whose thoughts are specially occupied in that direction. The full application of those principles demands the education of the engineer, chemist, physician, lawyer, and statistician. But there is still a wide field of work, in which the district visitor, the parish nurse, the minister of religion, all have functions that alone can be discharged by them, as well for the moral as the physical advantage of the people.

### ISLINGTON MORTUARY.

THE new mortuary at Islington consists of two compartments for bodies, a post-mortem room, a coroner's court-room, fitted as the coroner wished with every convenience, and a waiting-room. Nothing could be better for the purpose. During the four months and a half it has been opened, no less than 138 bodies have been received and kept in decent custody until the time of burial, and sixty-six post-mortems have been made. No other words are necessary to prove it was a necessity, and to justify the outlay it involved. The next thing for the authorities to provide is a disinfecting chamber. It is very much wanted, and we are glad to know that the great need of it has been brought under the notice of the vestry by the able medical officer of health.

## A Course of Lectures

ON THE

### NATURE AND TREATMENT OF DEFORMITIES OF THE HUMAN BODY,

DELIVERED IN THE MEATH HOSPITAL, DUBLIN, BY

LAMBERT H. ORMSBY,

Surgeon to the Hospital, and Demonstrator in the School of Surgery, Royal College of Surgeons in Ireland.

#### LECTURE VII. (continued from page 283).

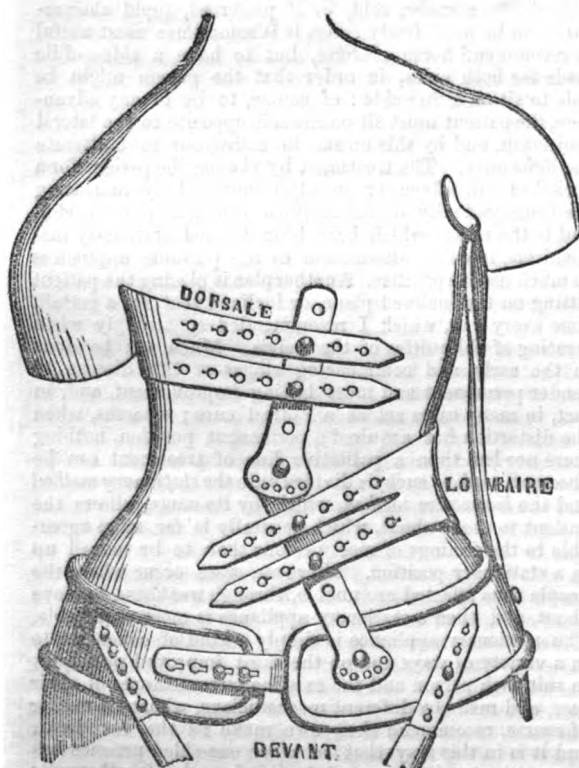
*Treatment of Lateral Curvature of the Spine*, which may be divided into palliative and radical, and as regards the means in use for the above purpose, it may again be divided into the mechanical and non-mechanical. I need hardly say, when lateral curvature of the spine has existed for a lengthened period, and that rotation of the bodies of the vertebræ has taken place, nothing more than a palliative line of treatment can be had recourse to for such a permanent distortion, as it is too far advanced to expect anything approaching a curative result.

When curvature of the spine is detected in an early stage, before any appreciable pathological change has taken place in the position of individual vertebræ, and very slight progress made towards the distortion, a complete change of life would be most desirable, change of air, rest from business, a visit to the country, a tonic line of treatment followed out to combat the weak and debilitated frame, which all through must have been a most likely predisposing cause of the distortion, the person most strongly urged to give up business for a time and do nothing else but attend to the constitution, to rest as much as possible in the lying or semi-recumbent position, and so take the superincumbent weight of the head and shoulders off the spine, as the recumbent position always tends to obliterate the abnormal curve, the erect position always tending to produce it.

Good nourishing food, together with a moderate amount of healthful exercise, cold, or if preferred, tepid shower-baths, to be used freely; also it is sometimes most useful to recommend horse exercise, but to have a side-saddle made for both sides, in order that the person might be able to sit on either side: of course, to be of any advantage, the patient must sit on the side opposite to the lateral projection, and by this means to endeavour to obliterate the deformity. The treatment by placing the patient for a period of ten, fifteen, or twenty minutes, daily increasing the time gradually, on an inclined couch, is most useful, and is the means which have been termed stationary mechanisms, in contra-distinction to the portable appliances so much used in practice. Another plan is placing the patient sitting on the inclined plane, or inclined seat, for a certain time every day, which I recommended so strongly when treating of obliquities of the pelvis. Much can be done in the early and commencing stages of this disease to render permanent and most lasting improvement, and, in fact, in many cases act as a radical cure; whereas, when the distortion has acquired a permanent position, nothing more nor less than a palliative line of treatment can be observed, and, as such, is divided into the *stationary method* and the *locomotive method*, which, by its name, allows the patient to move about, which generally is far more agreeable to the feelings of most persons than to be cooped up in a stationary position. However, cases occur where the people thus affected are unable, through weakness, to move about, and then a stationary appliance is most applicable. The stationary appliance is simply a kind of couch made in a variety of ways and on the most improved principles to suit each person and the existing circumstances of their case, and made by different mechanics, who, as a matter of course, recommend their own make as the very best; and it is in this way that so much one-sided practice has from time to time crept into this branch of orthopædic surgery, and has caused great abuse and diversity of

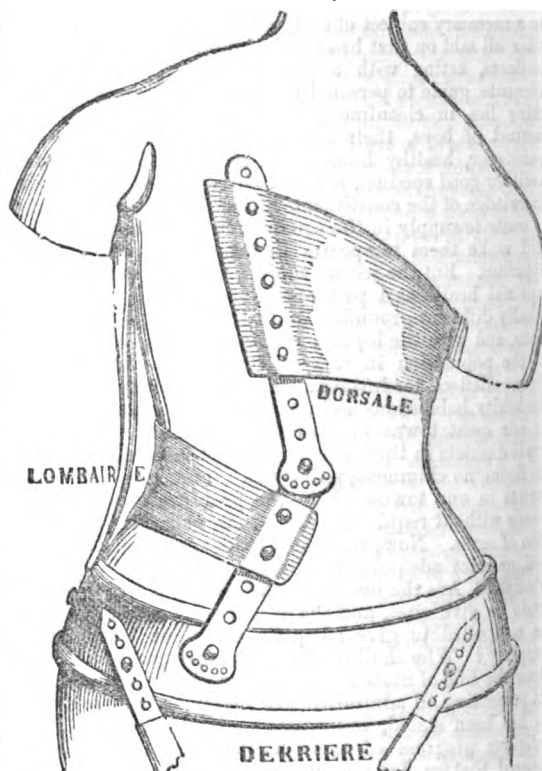
opinion in the treatment of this important subject; for some will order and apply instruments when they are thoroughly contra-indicated; others, again, are so adverse to such appliances, and will not apply them at all when they are really necessary. Such, I say, is an abuse that any practical surgeon cannot but understand will lead to much irregularity in applying and recommending the use of instruments by those who have but a superficial or limited amount of information in this class of cases. All instruments and methods, I again repeat, have certain advantages, but there is certainly a time to apply and not to apply them. There is a stage applicable to one line of treatment, and there is a stage totally unfit for such treatment; and if authors would, instead of indulging in personal remarks against each other, because their views do not happen to coincide with their own, endeavour to gain from such a diversity of methods sure and certain information to enable them to treat cases in such a way as to render the treatment more definable and less diverse, they would really confer a boon on humanity. There is a time, I believe, when spinal support, no matter how beautifully made and adjusted to fit, will produce more debility than it will improve; instead of giving strength it so hampers the action of muscles that in a short time it produces weakness, and even more debility. Again, I believe the use of spinal supports most admirable, and well calculated to give great relief, and they are now made with such care and exhibition of skilled workmanship that they are light, but firm, and so fitted to be worn under the thinnest dress, so as to elude all suspicion that any instrument was applied or worn at all, and so allows the person to move about. Figs. 18, 19, and 20 are all a variety of mechanical supports applied in permanent lateral spinal distortion; as can be seen, they are all made on the same principle—viz., the pelvis is made the basis of support. Figs. 18 and 19 are depicted applied to the body, but for different sides; Fig. 20 is depicted removed from the body, in order to show more clearly the way it is arranged in front.

FIG. 18.



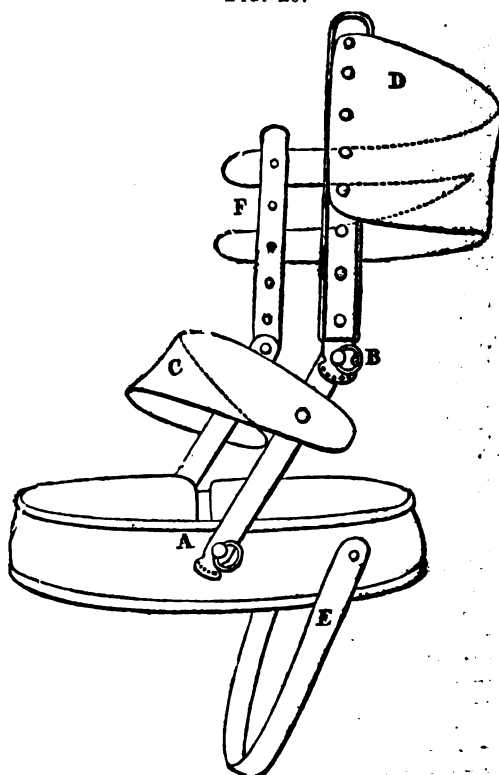
Appliance for Lateral Curvature of the Left Side.

FIG. 19.



Appliance for Lateral Curvature of the Right Side.

FIG. 20.



A Spinal Support unapplied to the Body.

POTT'S ANGULAR CURVATURE OF THE SPINE.  
This is a very common spinal curvature in scrofulous

subjects, and in the advanced stages, and frequently leads to most unsightly deformity.

*Definition and Anatomical Characteristics.*—It consists virtually in various disease affecting the anterior portion of the bodies and intervertebral substances of one or more vertebrae. The disease may for some time appear dormant and obscure, but after a time well-marked palpable signs begin to show themselves and demonstrate that disease of the vertebrae is slowly but surely commencing. It may affect any portion of the spinal column, but is generally confined to the dorsal and lower portion of the cervical regions; it occurs at any age, but in the majority of cases it commences primarily before puberty, and seldom after. The change that occurs in most cases is as follows: A slow form of subacute inflammation goes on in the anterior portion of the body of some vertebrae and contiguous intervertebral substances; the bodies are softened, and break down anteriorly, causing the spines to divaricate posteriorly, and in so doing produce the angularity. This disease may advance, and when it has reached a considerable extent it may suddenly cease; bony fusion of the bodies takes place, all irritation ceases, and a spontaneous cure takes place, as regards the irritation and inflammation, leaving the person the subject of a most unsightly curvature for life. Take, for example, a delicate scrofulous child that is the subject of this deformity, and the following history will be generally given by the parents or friends: The child from birth has been delicate, having the well-marked signs of the scrofulous diathesis depicted in its face, together with the appearance and constitution; the child is rather tall for its age; complained of pain in its back after the slightest exertion, and most particularly when it sat down suddenly in a chair; the child suffered from constipated bowels, and occasional spasmodic twitchings in the legs. If the disease occurs later on in life, there is a constant, dull, heavy pain experienced in the region that is the centre of irritation. The digestion will be bad, loss of appetite, emaciation, the recurrence of an abscess in close proximity to the situation affected; if the cervical region, a deposition of matter in the posterior pharyngeal region; if the dorsal, the matter may point in the lumbar region; if the upper lumbar region is affected, we have a psoas abscess pointing beneath Poupart's ligament, and many a time an abscess in this situation is the only symptom present that indicates there is irritation going on in the loins—and in the dorsal and upper lumbar vertebrae—opposite to the origin of the muscle. Again, the doubtful consistence of a tumour in the same situation has been cleared up by turning the patient on the face and examining the contour of the spine. Sometimes, I may mention, this examination gives little or no information, as no change can be observed at first in the spine externally, although great pathological change has taken place internally; and the only reason I can give for this is that the patient, when a psoas abscess is discovered, is sent into hospital and kept in the recumbent position, and thereby prevents a likelihood of the cause becoming apparent; but allow the patient to walk about, and you will very soon see the curvature: this is the only way I can account for an immense psoas abscess ending fatally by exhaustion and hectic without any perceptible angular curvature being produced, simply because the patient is kept in the recumbent position during the whole time of treatment. I had a case a short time ago of a young girl, æt. 19, who suffered from a psoas abscess for a very long time before symptoms of curvature were apparent, although she always complained of a dull, heavy, boring pain in her back, corresponding to the origin of the psoas. A very good plan of detecting the irritation is by laying the patient on the face and tapping smartly the spines of each vertebrae, and when the diseased one is tapped the patient will wince. Getting a hot sponge and passing it down the spine will lead to similar results.

When much deformity has taken place by the projection of the spinous processes backwards, the rest of the body begins to partake of a secondary kind of deformity,

and the thorax, ribs, and sternum are very much distorted, and respiration is considerably interrupted. Great tightness of the chest and palpitation are frequently complained of. It is a curious fact, and has been mentioned by other surgeons, that this disease turns out more satisfactorily among the very poor, who are subject to all kinds of depressing circumstances—such as want of attention, misery, and general privation—than among those who have every comfort, and live in comparative luxury; in these this disease general ends unfavourably, by exhaustion, hectic, and other debilitating causes; whereas, in the very poor, without care, attention, or any kind of treatment, the disease ends in a spontaneous cure—that is, by ankylosis and angular deformity, and as such, may live in the same state to a very advanced period of life, and can move about and follow their trade or calling nearly as well as before. Hence we see many examples of the kind walking about in the street, all having a dwarf-like-looking appearance and diminutive in size, for on the recurrence of the disease development no longer increases in an upward direction. If the disease does not end in such a favourable manner, paralysis frequently sets in, and the upper extremities may be completely affected if the disease commences above or in the vicinity of the origin of the brachial plexus of nerves; if in the dorsal region, complete paralysis of the lower extremities, with all the other usual concomitant symptoms, such as bed-sores and inability to pass water, &c.; all these symptoms increase, the patient goes on from bad to worse, and death relieves the unhappy sufferer; or it may occur suddenly by the bursting of a large psoas or lumbar abscess, or the falling in of two or three vertebrae, so crushing and compressing the spinal cord.

*Treatment.*—Like other curvatures, much can be done in the early symptoms of the disease. Rest in the horizontal position is the plan which all agree to be the best before any perceptible curvature has arisen, good strong nourishment given, cod-liver oil, the preparations of iron, some of the preparations of lime, XX porter, in the second stage when there is well-marked symptoms of irritation, caustic issues about the size of a shilling to be made on each side of the spine, and followed up by a good strong line of constitutional treatment; leeches have also been placed over the seat of pain. But I cannot say much for the treatment with rest, good diet, and a favourable posture of body; ankylosis is the point arrived at, which, when attained, is nearly all the surgeon can do to effect a cure. A mechanical spinal support, made on the same principle as the others mentioned, but with a slight modification, having a padded plate made to fit on the convex projection, gives general support, and also taking the superincumbent weight of the spine.

In concluding my remarks on this subject, I ought to mention there is a plan of treatment or a line of practice called the "spinal gymnastic treatment"—a plan that is also supposed to effect in itself wonderful and complete cures. Now, I am obliged to say I don't believe it, much as I approve of gentle gymnastic exercise, and frequently recommend it as being most valuable in the treatment of some cases. I do strongly disapprove of plans that string people up in a most ridiculous manner and suspend them by the back for the purpose of straightening the spine. All I can say is, that in any cases I have seen, such a line of practice would produce most injurious results, and we must only go back to three or four hundred years to look for such unscientific treatment, and also read the results, for, if it did not produce greater deformity than it was supposed to rectify, it left the patient very much in the same position as before, disappointed and worn out by such methods as I have described.

Another point I should also mention about spinal disease and deformity: There are a number of hysterical young ladies, or would-be "invalids" who frequently complain of their spine, and say they have spinal curvature, and, as a plea, remain in bed. I have had a number

of such cases under my care, and I must say they are most difficult to treat, as you will find, for it is not the slightest use "to argue the would-be patient out their belief." At the same time you know that no disease exists. I had one case under observation of a lady who was for 36 years bed-ridden, and under no pretence whatever would she be persuaded to get out of bed. However, she got an attack of bronchitis, caused by an open window, which ended in her death, and permission was given me to examine her spine, and not the slightest disease or distortion existed; and it seemed this lady got to like her bed so much that she would never even try to get up, and so persuaded her friends she had spinal affection that they never even doubted the fact until I informed them that they were all mistaken.

#### SPINA BIFIDA (OR HYDRO-RACHITIS).

This is a congenital spinal affection, which is the only one, I may say, that exists at the time of birth; it produces great deformity, nearly always ends fatally, and treatment does very little good, and, if attempted frequently, accelerates a fatal result.

*Anatomical and Pathological Characteristics.*—It occurs in very early foetal life; it consists in an arrest of development or coalescence of the laminae and spines of the vertebrae, they do not unite, but remain separate, and appear double, hence its name *bifida*; or in some cases the neural arch is not developed at all; the membranes of the cord, containing the cord and spinal fluid, bulge out at the opening, and produce a tumour varying from the size of an egg to that of an adult head. Treatment, as I mentioned, does not do very much for it. You will ask me, How does it terminate? Well, you are spared the trouble of much treatment in many cases, for it bursts at the time of birth; or it may increase to an enormous size and then burst; or its summit may ulcerate, and thus produce a similar ending; or the pressure of the subarachnoid fluid on the terminal twigs of the nerves may produce convulsions and death.

The treatment recommended is as follows:—

1st. *Pressure.*—When the tumour is very small, firm pressure, evenly applied with thin metal plate, gutta-percha, or india-rubber.

2nd. *Puncturing* the tumour with a trocar and canula, or, as is now used the "aspirator."

3rd. *Injecting* with very weak solutions of iodine, as mentioned by Mr. Holmes.

4th. *Excision* of the tumour when it is very small has been practised, and, in the case recorded, success is said to have followed, the neck of the tumour being first closed by a clamp before the operation.

Mr. Bryant, in his "Surgery," mentions this as the best treatment for such cases.

(To be continued.)

#### PHASES OF CEREBRAL DERANGEMENT.

By Surgeon-Major F. R. Hogg, M.D.,

Fellow of the Royal Medical and Chirurgical and other Societies.

In the traditions of the past we read that, through poverty, sickness, mental excitement, nervous mimicry, during damp depressing weather, inundations, political crises, religious superstition, the minds of many weakly, solitary, sedentary, idle, frivolous, or those engaged in unhealthy trades or occupations became unhinged, specially in June, about the festival of St. John, the attacks, however, noticed in summer or winter, the air moist or dry. Debilitated by hunger or bad food, influenced by imagination, well or ill-health, tailors, shoemakers, mechanics, farm labourers, clergymen, decrepit grandfathers, young girls, all formed circles to dance frantically together in wild delirium through towns and villages until they dropped of sheer fatigue, or were relieved by abdominal bandaging, by friendly blows or kicks in the stomach, to

dispel flatulent tympany. Beautiful young ladies, demure nuns, frisky matrons, dashed their brains against walls, sobbing, laughing, crying, stripping off their clothes, standing on their heads, mewing or barking like cats and dogs, and averse to pointed shoes, red clothes, or persons weeping, these maniacs, fiercely loving music, looking-glasses or bright metals, eagerly longed for the sea; some imagined themselves bitten by spiders, inspired by angels, possessed by devils.

In heated workshops, in crowded sensational churches or chapels, both sexes would fall into epileptiform convulsions, rocking their bodies backwards and forwards, sawing their arms, the legs occasionally remaining quiet, some wriggling themselves after the manner of fish suddenly cast on dry land. Abdominal cramp, flatulence, constipation, diarrhoea, dysmenorrhoea, dysuria, depression, dirty tongue, quick irregular pulse, aphasia, insomnia, insensibility to external impressions, tonic spasms, preceded by languor or sleep, persistent tremor, vomiting, sobbing respiration, permanent fatuity—such were the varied symptoms, relieved by beating the feet or extremities with hammers or clubs, by drenching the patient with cold water, by galvanism, or the administration of opium. During the attacks other nervous symptoms for a while would subside, and pregnancy both as regards mother and child be uninfluenced. Mayo, however, states that a woman in the fourth month of gestation had a frightful object thrown at her bosom, inducing nervous fever, and at the full period the child, previously preternaturally lively *in utero*, emerged into the world a choreic girl, who, at thirty years of age, continued the movements, her mind almost idiotic.

Hecker, or rather Cooke, tells us of the shepherd boy who started the child crusade of 30,000, all bound for Jerusalem, to reconquer the Holy Land, sons of rich and poor, girls in boys' clothing, and to the grief and despair of parents. Seven ships full sailed from Marseilles; two struck on a rock—not a soul saved; the remaining five ship loads were sold as slaves to the Saracens. A second pilgrimage of 7,000 fared no better; many died of debility or starvation in Alpine passes; those who returned were jeered at or bound by the Pope to undertake the conquest of Jerusalem in after-life. My experience of chorea in childhood, after marriage (*vide* MEDICAL PRESS), during pregnancy, has taught nothing beyond the symptoms, the association with rheumatism, anæmia, or endocarditis. The high specific gravity of the urine, the frequent absence of organic change, the cerebral lesions, or the increased vascularity in the central ganglia, the warty vegetations sometimes noticed about the mitral valves, are by no means specially diagnostic. Although cases are tedious and singularly distressing when isolation cannot be maintained, the treatment only involves time, confidence, and common sense, excepting during pregnancy, when death or paralysis may result to mother or child. My impression is that dengue during pregnancy may occasion infantile chorea. Considering the sun, the rains, rheumatism, thunder, intense heat, extreme cold in India, it is very puzzling to find that during ten years in Bengal but 5 women, 6 children, and 29 men suffered from chorea—not a single death, the year 1868 affording most instances, when four men were invalidated. Cases of malingering are not common, such as spinal disease or paralysis; nor are phantom tumours, nor the curious mimicry of abdominal or other aneurisms often met with amongst soldiers' wives.

Acupuncture, galvanism, chloroform, as suggested by Sir J. Paget, clear such doubts. Dr. Hughlings Jackson also states that in real hemiplegia the paralysed arm falls forward when the patient stoops; when feigning the arm will be retained by the side. In genuine cases, chained to bed, the muscles waste, and the soles of the feet become cracked and scaly. We know that epidemics seize the joyless, the depressed, the timidly nervous; no statistics can tell how many have died of simple fright. Drunkards have been known nervously to feign hydrophobia, like dogs or committing outrageous excesses.

to detection. Beyond structural changes connected with the medulla oblongata, the pneumogastric and spinal accessory nerves, but little is known of this disease, which from 1860 to 1869 occasioned 21 deaths in Bengal. From the limited experience of one case my treatment would include Turkish baths, or the hypodermic injection of chloral into the back of the neck. Writers' cramp, affecting dissipated musicians, unable to play the violin, was occasionally met with at Woolwich, and relieved by iodide of potassium, strychnine, galvanism, and good living; one interesting case perhaps Dr. Wilks has the notes of. Of 390,678 soldiers in Bengal, from 1860 to 1869, certain admissions into hospital ran as follows: Meningitis 66, myelitis 9, encephalitis 64, sunstroke 1,812, paralysis 639, tetanus 14, delirium tremens 1,750, paralysis agitans 8, neuralgia 1,773, cephalæa and vertigo 3,033, mania 425, dementia 546, melancholia 52; of these the deaths from meningitis were 25, sunstroke 858, paralysis 60, tetanus 8, delirium tremens 187, mania and dementia 17, and so on; invalided were meningitis 5, encephalitis 9, sunstroke 92, paralysis 192, neuralgia 37, vertigo 117, mania 106, dementia 185, melancholia 14. Neuralgia, both in the hills as well as the plains, tortures terribly the incurable.

However, besides heat, damp, climatic conditions, malarial influences, weakly constitutions, the direct and indirect deterioration of body caused by drink, syphilis, excessive smoking, careless living must be considered. Of 1,468 epileptics 22 died, 279 invalided, notably in 1860, a most difficult disability to detect at enlistment, for the eyes, the face, and demeanour are not invariably characteristic of a disease so easily provoked or reintroduced.

Bromides and iodides act very capriciously in hot climates, and unless the patients are officers or ladies, anxious to assist their own cure, the labour is that of Sisyphus. Somnambulists occasionally bring trouble on themselves and others. Suicide and suicidal wounds accounted for 118 deaths; 21 only in hospital the instances of cut throat, hanging, drowning, poisoning by opium, arsenic, prussic acid, cyanide of potassium; by shooting or decapitation, by railway trains, at various times personally noticed or encountered, were invariably associated with drink or women, or both, the most trivial reasons sometimes. After the rains in India great mental depression fastens on us all. By all accounts, at Lucknow, with round shot crashing into houses, shells bursting in the roads and verandahs, bullets whistling ping-ping or thudding against the walls, and mines like earthquakes shaking the very foundations, many children were prematurely born, the strong only surviving. As comrades fell, and week after week drearily dragged on without good news, many, losing heart, suffered from nervous ailments, specially irritation of the bladder; but the love of life continued. Out of 6,650 women in India in 1872 no cases of chorea recorded; paralysis 6, neuralgia 48, hysteria 33, puerperal convulsions 2—no deaths; rheumatism, 1 death out of 120 cases; epilepsy 13 instances—2 deaths. These statistics, of course, can only afford approximate ideas and information. Cerebral diseases of women may depend on anæmia, menorrhagia, uterine hæmorrhage, early marriages, sterility, rapid pregnancies, hyperlactation, domestic troubles, jealousy. Uræmic convulsions and puerperal mania, both dangerous recurrent diseases, may be averted by early diagnosis of patients proclivities. A woman with moon-blindness recently attracted attention. Children in India often run about bare-headed in the blazing sun. Of 11,657 in 1872, meningitis occasioned 37 admissions, 27 deaths; hydrocephalus 20—11; convulsions 225—171; dentition 401—92; sunstroke 11—3; chorea 3 admissions, no deaths. Dr. Bradshaw, Surgeon to the Commander-in-Chief, tells me that the experience of seventeen years in India amply testifies to the value of small doses of morphia to calm the nervous irritability of children during intense heat. Salaam, or nodding convulsions, will be met with in army medical practice, also the frequent fatal diversion of pneumonia, whooping-cough, or eruptive fevers into tubercular meningitis. Of 1,560 officers in 1872 the 26 deaths included but one case each of apoplexy, concussion of the brain, or tetanus. From

1860 to 1869 snake-bites figure in Bryden's tables as 13 admissions—2 deaths, the accepted theory being that the heart is tetanised, the circulation checked, the muscles of respiration paralysed, asphyxia caused, besides septicæmia. Lightning occasioned 3 admissions all fatal. There is a case at Mooltan of progressive paralysis affecting a young fair-haired, married man stunned by lightning. These observations refer entirely to Europeans, for whom endless resources and recreations are annually increasing in India—let me add the finest country in the world in some respects for every poor man provided he be of good constitution, also of active, careful, abstemious habits, and adapting himself to the climate.

Simla, India, Sept. 1st, 1874.

## STRYCHNINE AS AN ANTIDOTE TO OPIUM-POISONING.

By ALEX. G. BURNES, M.B.

THE *Medical Times and Gazette* of September 26th contains an extract from the *New York Medical Journal* for August referring to a case of morphia-poisoning successfully treated by atropia and electricity.

The chief interest of this case lies in the fact that great credit is given to the atropia, for Dr. Trask (the patient in question) says "he believes that the influence of the atropia in mitigating and eventually triumphing over the morphia was evident;" yet, farther on, he says "he is disposed to believe that the great nervous prostration under which he afterwards suffered, and especially the loss of locomotive power in the lower extremities, is to be ascribed to the influence of the atropia;" and, again, he says, "in one case reported by Dr. Schweig the patient was saved by the electric current alone." It is to these three points I would call especial attention. Now, the first point—viz., "the influence of the atropia in mitigating and eventually triumphing over the morphia was evident," is entirely opposed to the views advanced by Dr. Jno. Harley in his work on the "Old Vegetable Neurotics" (page 300), where he states that "atropia increases the cerebral and anæsthetic effects of opium," and "that the influence of belladonna in removing the respiratory difficulty is slight and ineffectual, since it extends only to the release of the bronchial tubes, without affecting the diaphragm or external respiratory muscles." These remarks will also apply to the second point referred to above, and in connection with the third point, the following remarks of Dr. Harley are important and interesting.

1st. That of several cases he examined, the evidence of antagonism (between atropia and opium) in any given case was conclusive.

2nd. Taken individually or collectively, the cases showed that belladonna had no influence whatever in accelerating the recovery from the poisonous effects of opium.

3rd. That somnolency, stupor, narcotism, and coma, the essential effects of opium, are both *intensified* and *prolonged* by the concurrent action of belladonna.

4th. That belladonna is powerless to obviate the chief danger in opium-poisoning—viz., the depression of the respiratory function.

5th. That the results of the combined action of opium and belladonna are the same, whether given in medicinal or toxic doses. While, therefore, belladonna cannot in any sense be regarded as an *antidote* against opium but in large doses, the *exact reverse*, it may, under certain conditions (*vide* page 309), and always in *small* doses, be used in conjunction with other remedies as a means of aiding the recovery.

The above remarks, which I fully agree with, all serve to show that we will not find an antidote in belladonna against opium. It now remains for me to detail a few experiments conducted by Mr. F. J. Mavor, and related in our conjoint work, "The Specific Action of Drugs," to show what is the *real antidote* to opium (page 127).



*Experiment 1.*—Half a grain of acetate of morphia was given by subcutaneous injection to a dog at 4.50 p.m., temperature being 101°, pulse 70.

At 6.50 dog was sleeping, the secretion of saliva greatly increased, and flowing from mouth. When roused it had no power over hind legs. Temperature 99°, pulse 70.

At 7 o'clock 1-23rd of a grain of nitrate of strychnia was administered. Within a few minutes the flow of saliva ceased, the sleepiness passed off, and the dog rose up and walked about; while at 8 o'clock the animal was quite lively, and in its normal condition.

*Experiment 2.*—In this case, half a grain of acetate of morphia was given subcutaneously to a dog at 5 p.m.

At 5.40 the animal seemed drowsy; the secretion of saliva was increased.

At 6.15 animal very sleepy; saliva flowing freely from mouth.

At 6.50 gave 1-16th of a grain of nitrate of strychnia. At 7.5 violent rigidity of muscles; respiration rapid; heart's action very weak.

At 7.20 rigidity subsiding; dog very drowsy.

At 7.30 made several attempts to rise, but failed; the flow of saliva ceased.

At 7.40 succeeded in rising, and was able to run about, but was very nervous, and easily startled.

Next day was quite well.

*Experiment 3.*—In this case one grain of nitrate of strychnia and four grains of acetate of morphia were given by subcutaneous injection to a horse at 11.30 a.m.

At 1.10 muscles somewhat rigid.

At 3.40 rigidity subsided.

Next day, 12 noon, animal in normal condition.

*Experiment 4.*—Some days afterwards, to the same horse was given, by subcutaneous injection, eight grains of acetate of morphia and one grain of nitrate of strychnia.

At 10.45 the only effects produced by this dose were slight dilatation of pupil, and reduction of pulse from 40 to 36.

At 4.30 the animal was in a normal condition, pulse and temperature same as before commencement of experiment.

*Experiment 5.*—In the following experiment one and a quarter grain of nitrate of strychnia was given to the horse at 3.10 p.m.

At 4 p.m. rigidity of the muscles.

At 4.5 p.m. injected subcutaneously ten grains of morphia.

At 4.15 rigidity nearly all passed off; horse rather restless and excited from the morphia.

At 4.30 rigidity and excitement subsiding.

At 7.30 slight increase in secretion of saliva; horse still restless at intervals; but next day all effects passed off.

Such is the results of experiments with strychnia and morphia on the dog and horse, and I have no doubt the effects would be the same on man, and believe that here we have a fully proved *antagonistic* action between these drugs.

About three years ago a correspondent of the *Medical Times and Gazette* contributed a report of several cases of opium poisoning treated by atropia, but as he had in all the cases conjoined other treatment, such as electricity, strong coffee, emetics, &c., he invalidated the importance of his results in a scientific point of view. Now, at that time I called attention to this fact, and also related some of the experiments recorded above, and as yet I have seen nothing to disprove the conclusions I then drew therefrom. I trust others may direct their attention to this important subject and publish the results of their experience.

## SOCIAL SCIENCE CONGRESS.

THE Public Health Section is the one in which our readers will be most interested. It was presided over by Dr. L. Playfair, who delivered a lengthy address ranging over all the subjects usually included under the term Public Health. Our space does not admit of our following him through all these; but we must make room for his exposure of the manner in which our sanitary legislation has been muddled. On this subject the President said:—

“In England, at the present time, there is a casual agglomeration of 1,500 separate sanitary authorities, without system or cohesion. Their areas of administration are diverse in the extreme, being neither bounded by counties, parishes, nor natural watersheds, and their duties are divided without meaning between authorities in the same district. They have been lately put under medical officers of health without preparation or qualifications for their duties, some well paid and devoting their time to this important work, others having little more than nominal payment and giving little more than nominal time to their important duties. Notwithstanding this too sudden and unprepared universal appointment of medical officers, yet in the administration of the Health Acts there has been recently manifested a disposition to ‘distrust the doctors’ and to work the Acts, at least at head quarters, by lawyers and other persons not connected with the medical profession. This is the old error of making common sense the fetish for worship, which Archbishop Whately and others have so effectively condemned. Even the most fervent worshipper of common sense, as opposed to technical training, never relies on it in important emergencies of his life. He goes to the lawyer to make his will or to convey property; he consults the parson on religious doubts when on the sick bed; and he does not spurn the doctor to cure him of his grievous ailment. But it is well known that the Local Government Board are afraid of the doctors in the administration of Health Acts. Who beside them possess the knowledge? I can testify, from an experience of thirty years in sanitary work—and impartially, because I am not in the medical profession—that there is not a class of men in the country who labour so zealously for the prevention of disease as the doctors, though their training hitherto has been cure, not prevention. Certainly their private interests have never been allowed to stand in the way of their efforts to uproot disease, although their living depends upon its existence. This unselfishness in the application of their science to prevention has always been to me a source of high admiration. Why, then, is there this vulgar distrust of the doctors in the administration of our Health Acts? Extend this prejudice against technical knowledge, and how absurd it would be. Would you improve the progress of telegraphy in this country by suppressing electricians; or the law and justice of the country by putting down lawyers? Would the Secretary at War promote the conduct of war by suspecting soldiers; or the First Lord of the Admiralty the efficiency of fleets by distrusting sailors? Would our railroads and harbours be better governed if engineers were held at a discount? But this is actually the state of things at the Local Government Board—the Health Ministry of the country. The Privy Council handed over to that board Dr. Simon and his associates, with a wealth of medical experience in public hygiene. Ever since, that wealth has been locked away from public use. Certain I am that their experience could not have guided the board in the utter confusion of organisation in regard to medical officers of health. They have been appointed without any system. Some have a small parish to attend to, others have a thousand square miles. The last are appointed for combined districts, but are managed by uncombined authorities, and have neither assistants to aid them nor power to enforce their decisions. The officers of health are without any definite rule for obtaining available knowledge of prevailing sickness, even when it is treated at the public expense within their own districts; and they are not, universally at least, informed of the deaths as they occur. The medical officers of health have been appointed without any examination on their knowledge of State Medicine, and in the majority of cases they do not possess this knowledge. I am perfectly certain that this utter confusion could not have resulted had the Local Government Board consulted the experienced State medical officers belonging to them. This distrust of the doctors in higher adminis-



tration is simply a general mistrust of science. And the time has now arrived when science must be trusted in government. Science is entering into the higher education of the country, and the prejudice against it among legislators, who were educated in classical universities, will in time be removed. For the progress of a country depends upon the progress of science, and the welfare of a nation is secured by the most intelligent application of science to its manufactures and to its government. The health of the country—and that governs the productive power of its people—depends as much upon the applications of medical science as the working of a machine depends upon a good application of mechanical laws. To trust the whole administration of Health Acts to Poor-law inspectors and lawyers is an amazing example of unbelief in the first principles of the laws of health. The well-being of the people depends upon physical causes, which, when intelligently understood, mean physical science, and the trained physician is the natural and most intelligent agent for extending its knowledge and application to the prevention of disease.

What we want in the future is not new law, but more efficient administration of existing law. To heap up new sanitary law on the decaying mass of indigested sanitary law which already forms a dismal agglomeration, is like the practice of our ancestors, who thought that a few clean rushes, thrown upon the corrupt mass of foul rushes on the floor, sufficed for sanitary purposes. What we want is superior organisation and efficient administration of existing law. But, in our happy-go-lucky style of government, are we likely to get it? I doubt whether it will be wise to continue the local government as a separate department of the State. Its functions, in reality, appertain to the Home Office, which, when properly organised, should divide itself into two great departments—the one dealing with police and justice, the other with the physical interests of the people. One Secretary of State might have the supreme responsibility, but each of the divisions should be scientifically administered. It would be as absurd to put a man trained in physical science at the head of the branch of police and justice as it is to put a man merely trained in law in charge of the physical interests of the people. It is an exploded fallacy that only lawyers are good men of business, and that scientific men are not. Is my friend Sir John Lubbock a worse banker because he is an eminent man of science? Is Mr. Spottiswoode a worse printer because he has distinguished himself as a physicist? Is Mr. Warren Delarue a worse stationer because he is equally conspicuous as an astronomer and as a chemist? The local government of the country, in as far as it relates to the physical interests of the people, will remain an example of arrested development unless science receives a recognised position in its administration. Now, the Local Government Board is drifting into the position of a large and responsible ministry dealing with the physical interests of only one portion of the people, and having no imperial object or comprehensiveness; for, though it includes England, it excludes both Scotland and Ireland.

Mr. DAVID GIBB read a paper on "The Relative Increase of Wages, of Drunkenness, and of Crime during the last Five Years in the Central Mining Districts of Scotland." Mr. Gibb said the industrial result of the unprecedentedly high rate of wages obtained between 1869 and 1873 had been almost wholly disastrous.

Dr. ALEXANDER ROBERTSON read a paper advocating further legislation for persons labouring under mental disorders resulting from or characterised by excessive indulgence in alcoholic liquors.

Dr. YELLOWLEES, of Gartnavel Asylum, read a paper on "The Criminal Responsibility of the Insane."

Dr. ANDREW FEBGUS, of Glasgow, read a paper on "The Sewage of Towns and Disposal of Organic Refuse." He objected to the water system, and advocated the return of excreta to the earth.

Mr. BALDWIN LATHAM, C.E., read a paper on "The Sewerage of Towns." The object of his paper was to reverse the preceding one—viz., to show the necessity of procuring water in abundance for all our large towns. After the water was procured, it must subserve all the purposes of removing the alvine discharges of the population as well as all the liquid refuse from slaughter-houses and manufactories. The dry system of collecting the alvine discharges had never been shown to be remunerative; the liquid portion of the sewage had also to be dealt with, and it was as difficult to purify that portion as if it contained alvine discharges.

Major-General H. Y. D. SCOTT, C.B., read a paper on "Legislation for the Restraint of River Pollution."

BAILIE MORRISON, Chairman of the Committee of Management of the Glasgow Improvement Trust, contributed a paper on "The High Rate of Mortality in Glasgow, with Observations on the Measures taken by the Municipal Authorities to reduce the same under the 'Glasgow Improvements Act, 1866,' and other Public Acts." The high death-rate in Glasgow was simply from a variety of causes—(1) the character and occupation of the population; (2) the impurity of the atmosphere; (3) density of population and overcrowding; and (4) infant mortality. In Glasgow, 3,085 houses had been demolished by the City Improvement Trustees, displacing an estimated population of 15,425; to provide for which, and the natural growth of the city, 26,974 houses had been erected within the municipal boundaries, from 19th June, 1866, to 31st August, 1874, which were estimated to accommodate 133,970. This did not include the numerous buildings in the immediate outskirts of the city.

The Rev. B. J. SIMPSON also read a paper on the same subject.

Mr. SIMPSON claimed special attention to the following four points in providing dwellings for the labouring poor.—(1) Let them be as convenient, or—to use their own expressive term—"handy" as possible to the work of the people; (2) Let them not be too much congregated into one faubourg or quarter, objectionable alike on social and on political grounds; (3) Let there be, if possible, in the buildings, or hard by, a good wash-house and a "crèche" or "infant nursery," in which to tend and guard the infants during the parent's absence at work, and thus enable the elder children to go to school; and (4) Let there be, if it can at all be secured, a playground or vacant space, where the children can play without the probability of being run over by a butcher's cart or contaminated by the lowest company of the streets.

The Rev. Dr. J. ELDER CUMMING contributed a paper on "The Neglect of Infants in Large Towns, with some Remarks on the Crèche System." He was not an advocate for having a large crèche of fifty or sixty children, but a number of small institutions, taking up district after district. The advantages which could be fairly claimed for the system were:—For the infants themselves, good and suitable food, sufficient warmth, shelter, and ventilation, constant cleanliness and medical care; and for the mothers, the effect had come to be that, accustomed to see their children in a state entirely different from what they had ever known before, they made afterwards an effort to keep them so; and for the public at large, it might be hoped that an extension of the system would gradually lead to a great decrease of infantile mortality, and the rapid and decided improvement in the bodily condition and health of the children who were spared.

Mr. F. FULLER read a paper on "Our Paramount Duty to Provide Wholesome and Pure Recreation and Amusement for the People, and the Dire Results and Dangers which attend Neglect of It."

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"SALUS POPULI SUPREMA LEX."

WEDNESDAY, OCTOBER 14, 1874.

PROFESSOR HUXLEY'S INTRODUCTORY AT OWEN'S COLLEGE.

PROFESSOR HUXLEY delivered an address at Owen's College, which will be taken as the most striking of the

provincial introductory, just as the opening of the new buildings of the medical department places the Manchester Medical School in so high a position. These new buildings are described by the Manchester papers as worthy of the great capital of Lancashire, and Professor Huxley compared Owen's College with old universities in the most favourable manner. It seems that provision has been made for the efficient teaching of all departments in the most thorough way. The professor of chemistry finds himself in one of the best laboratories in the kingdom—some say in the world. The professor of physics has a laboratory with which few men can compare, and other teachers are equally well provided.

The anatomical theatre is large enough for 250 students; the medical theatre for 150. The dissecting room is 77 feet long and 32 feet wide. Its floor is of asphalt, and it is fitted up in a way said to surpass those of the metropolis. The museum, library, and other rooms are on a similar scale.

From what medical visitors tell us we are not surprised to find that the place drew from Professor Huxley unqualified admiration. He confessed his pride to be in his position on that day, and congratulated Lancashire on having, by its own efforts, accomplished so great a work. He even anticipated that the future would only increase the good work thus nobly begun. It is not unnatural that he should have fastened on the Dalton and Platt Scholarships as particularly commendable. These are prizes for original research; and new as this feature is in education, it is perhaps one of the most important in its bearings on the progress of science. England has few prizes for men of science of any kind. Scholarships open to young men who display ability in original work can scarcely be established without exercising great influence.

Having spoken a friendly word of the arts department, and stimulated the Lancashire lads by a statement of his experience as an examiner, the Professor addressed the lay portion of his audience in his usual happy way, and showed them by a familiar illustration the necessity of so complete a school of medicine.

If we cannot admit that his analogy holds good throughout, we find it sufficiently interesting to give an outline of it.

The Professor supposed that his hearers might be puzzled to know why so elaborate an apparatus is needed for the teaching of medicine, and why men require to spend so long a period of arduous study in that most important of pursuits; and he suggested that this surprise arises from the prevalence in the general mind of the notion which was once exceedingly common in the philosophical mind—that the human body in general is dependent upon forces and powers which were altogether different from those we find working in other kinds of matter. He went on to add that it is not two hundred years since the notion existed that the vital processes of the body were subject to some demon who kept the body straight when in good temper, and let it go wrong when out of sorts; and, when it was gravely supposed that there was a broad gulf between the phenomena of inorganic nature and those of life. Difficult as he would find it to prove this to be a fair statement, we admit as much more just the opposite that the whole of our modern

scientific study of medicine depends upon precisely the contrary assumption—upon the assumption that the living body is a mechanism infinitely more refined, and infinitely more difficult to understand, than our coarse human machinery; but still the mechanism of it is governed by rules and laws which can be discovered, and which can be applied and reasoned from, in order to understand its processes.

"Modern medicine, in fact, is a kind of engineering," said Prof. Huxley: "It is the attempt to understand the machinery of the body, for the purpose of being able to put it right when it goes wrong. I have seen in your great factories in Manchester some of those astonishing complicated pieces of machinery which seem almost endowed with life, by which the products which make Manchester so famous are produced. Let me put before you the case of the possessor of one of those machines, who, finding that it has gone wrong and that it will not work properly, finds himself, as Sir Robert Peel would say, with three courses open to him: either that he might sit down and hope that it would get better, and, perhaps, even offer up his prayers that it might get better; or that he should send to the nearest blacksmith and tell him to bring his hammer and bottle of oil, and tap here, or oil there, in the chance of setting the machine right; or should, thirdly, send for some skilled and experienced mechanic who, from long study and familiarity with it, would be able to judge by the mode of action where it was wrong, and be able to put his finger on the part which was broken or injured, and thus be able to set it right. Now the human body is a machinery which, in complexity, stands to the spinning-jenny in the same relation as the spinning-jenny stands to a child's windmill. But it stands by the same laws, and those who have to deal with it must be guided by the same reasoning. Sickness is the going wrong of the machinery. Death is the destruction of part of the machinery; and the only way in which that machinery can be set right if it go wrong, is not by sitting down and hoping for it is not by sending for the first blacksmith, who will administer his purge here and his bleeding there, and who is what we call a "quack;" I mean a person who is really ignorant of that with which he is dealing, and who yet, nevertheless, presumes to meddle with it. That is the essence of quackery. Or, thirdly, we must send our skilled engineer, who, by the help of what he calls symptoms, finds out what wheel is out of place, what cog is broken, and by his previous knowledge of therapeutics and remedies, knows in what way it is possible to get this erring wheel or broken pinion into its place again. And it is in order that we may have such skilled engineers to the body that all this great apparatus, which you see erected here, and all this long period of study is carried out."

Having shown the need of good preliminary education and of much severe study, Prof. Huxley turned to the new students and said in conclusion:—

"You have before you probably that which is the most responsible of all human careers. It is hard for you not to realise that. It is hard for you, curbing the hot blood of youth, to understand what issues may depend upon your present career; but depend upon it, exactly in proportion as you make use of these advantages, as you feel the burden of your responsibilities, as you acquire that knowledge which was essential for you, so will your lives in the future be passed in the satisfaction of well-merited renown or in the misery of a violated conscience."

#### THE INFLUENCE OF CONTRACT DOCTORING ON THE EXPECTATION OF LIFE.

THE great danger not only to the profession, but to the public, to which we have more than once called attention in referring to the system of club, or contract doctoring,

which is now much belauded, is dealt with in a new line of argument by Dr. Tweeddale in the number of the *Melbourne Medical and Surgical Review* for last August. We have from time to time urged upon our readers the consideration, that by lending their countenance to "provident" dispensaries and pseudo-charitable institutions, they incur the peril of including within the boundaries of these so-called charities a vast number of well-to-do mean people, who will never pay a sufficient fee for an attentive consideration of their case as long as they can defraud the doctor into the expression of a slap-dash dispensary opinion, the writing of a hasty prescription, and the giving of a cheap and useless PLACEBO of medicine. We don't look at the sixpenny dispensary or the threepence-a-head sick club solely from the point of view of its influence on the profession, although our readers may well take to heart the ultimate result of encouraging a low class practitioner to attend people of any rank without restriction for a nominal fee.

We regard it as thoroughly short-sighted to invite the artisan class (even supposing contract doctoring to be restricted to them) to level themselves to the condition of medical paupers, and to content themselves with such medical advice and physic as they inevitably receive for a sixpenny fee, or a threepence-a-year subscription. To all parties the result must be bad—to the medical man who does the work, because it tempts him to make hasty diagnosis, give rule of thumb opinions, and exhibit sham medicines; to the profession at large, because it diverts into the pauper channel a vast class who are well able and half-willing to pay an adequate fee; to the artisan himself, because it induces him to adopt a false economy in medical matters, and to be satisfied with doctoring which in the long run cannot be good, because it is not sufficiently paid for.

We do not in the least mean to infer that the provident dispensary or the contract club are without their uses. There is a class just above the destitute, but far below the opulent artisan or comfortable shop-keeper, who could thus obtain something like medical attendance without applying to an hospital in *forma pauperis*, but we venture to say that this class does not constitute one-tenth of those who avail themselves of one or other of the many methods of contract doctoring.

Dr. Tweeddale goes further still, and maintains that the effect of the wide-spread system of contract doctoring in Australasia is to increase seriously the rate of mortality, and thus imperil the stability of insurance companies, whose statistical basis it is that their customers, as a rule, receive all the medical care which the profession can give them. He says:

"One factor of the problem, to assess the value of an average human life in this colony, I do not think has hitherto been taken into consideration, and that is the system of contract medical attendance. Well-to-do tradesmen, professional men, magistrates, and even mayors of boroughs, are not ashamed to belong to benefit societies, and take advantage of the services of the medical men of the club they belong to, and make use of the medicines supplied them at a mere nominal cost. However well this system may be adapted to the necessities of the working classes, who are not in a position to pay a medical man—yet cannot be allowed to linger in sickness without medical attendance—yet what can those who can well afford to

pay a medical man expect when they regularly employ the club doctor? Of course, they get his services together with his or the club dispensary's medicines; but whether they get full results of his judgment and scientific training is an open question. What members of any profession or trade give more than an equivalent of brains or goods for an amount tendered them? Surely it is but just to infer that the public get no more than the value of their money, which in this case is little enough. The sooner life insurance offices set their faces against the system of contract doctoring, either by a direct charge for the extra risk, or making voidable all policies in the event of death under this condition, the better chance they have of avoiding a certain though hitherto uncalculated loss.

## Notes on Current Topics.

### Scarlatina in Ireland.

WE regret to observe from the latest report of the Irish Registrar-General that the large diminution in the number of deaths from scarlatina which we reported last week was illusory, and that a considerable increase in the registered mortality from that disease has occurred within the last week. The deaths in Dublin and the suburban districts have been 26, or 8 more than last week.

In Coleraine the epidemic had attained alarming dimensions. The Irish Society's schools, at which there are generally upwards of 600 children in daily attendance, had been closed, the disease having attacked numbers in almost every family. Indeed, there were only seventy-eight in the infant school out of the average of 260 on the rolls, and an almost equally small proportion in the other two. The National School had been shut nearly a fortnight from the same cause, and numerous deaths had taken place, scarcely a single quarter of the town being free from the disease. The outbreak was preceded by several cases of fever, and there are yet several patients in the Poor-law Union Hospital.

### Adulteration Act.

DURING the past year, Dr. Tidy, Officer of Health for Islington, has examined eight samples of black tea, twenty of green tea, fifty-four of coffee, four of chicory, one of bread, twenty-six of pepper, twelve of butter, fourteen of mustard, and thirteen of milk. Nine samples were submitted to him by the public—viz., eight of milk and one of pepper. In five cases the inspector prosecuted. One tradesman was fined 20s. and 2s. costs; three 5s. and 2s. costs; and one 5s. and 4s. costs. In the case of the samples submitted by the public, two samples of milk and one of pepper were pure. In two cases of milk it was certified that they may or may not have been adulterated; in the four other cases of milk, that they were adulterated. We lately referred to the opinions of other medical officers of health on milk. We now give Dr. Tidy's, as stated in his annual report:—"As regards milk, I think it right to explain to you that it is an article having a variable composition. There are rich milks and poor milks, but both genuine. Therefore, before I certify that a milk is adulterated, it must fall below the composition of what I have found in some cases to be that of poor but genuine milk. If it is just over this, the milk is very doubtful, but

possibly may be genuine. I then certify that it may or may not be adulterated. This is the course I have always pursued and intend to pursue, because I believe it to be a correct one."

It is to be observed that Dr. Tidy does not tell us the lowest quality he passes.

### Visitation of Examinations.

THE Branch Medical Council in Ireland, not considering it expedient to select the visitors of examinations which the Executive Committee have asked them to nominate, have addressed the following letter to the various licensing bodies :—

Branch Medical Council (Ireland), 35 Dawson Street,  
Dublin, 5th October, 1874.

SIR,—I am directed by this Branch Council to inform you that a letter has been received from the President of the General Medical Council, requesting this Council to furnish to the Executive Committee of the General Council the names of such gentlemen as would be willing to act as visitors of examinations, and in accordance therewith, to request that you will be so good as to take steps to ascertain what members of your body will be willing to undertake such duty, and furnish me with their names and qualifications on or before Tuesday, the 13th inst.

The terms on which the appointments will be made are, that each person to be appointed will hold himself in readiness to visit and report upon such examinations, held in the United Kingdom, as he may be called upon to attend, the rate of remuneration to be as follows : Travelling expenses, together with a fee of five guineas a day, whilst engaged in the visitation, and an allowance of one guinea a day for hotel expenses.

I am, Sir, your obedient servant.

W. ED. STEELE, M.D., Registrar.

The Council of the Irish College of Surgeons have therefore forwarded a copy of it to each of the Fellows, asking them to send in their names if they are willing to serve.

### London Hospital Saturday Fund.

A LARGE meeting was held in Hyde Park on Saturday, under the Presidency of Archbishop Manning, who delivered an able address in support of the movement. We are sorry to interpose an objection to the cause of charity, but from the outset the fund has not been well managed, nor have the counsels of the hospital authorities, or the profession, been even indirectly sought in its promotion. We are not the only objectors, and sincerely do we trust that in the distribution of the fund nothing may crop up from behind to disgust contributors and deter working men generally from future honourable support to our hospitals. Here is what *The Observer*, one of our leading lay contemporaries has to say on the subject :—

"Hospital Saturday may be a good movement, but its promoters should not go out of their proper course to procure subscriptions. It is essentially a working man's fund, and subscriptions should be invited of working men only. Grand days at the Crystal Palace, amateur performances at fashionable halls, and special entertainments at theatres in its aid are entirely out of keeping with the ostensible character of the movement, while the sending out of a number of boys decked with scarlet sashes bearing the words "Hospital Saturday," and carrying boxes for the collection of indiscriminate subscriptions, is not only a degradation of the movement itself, but an insult to the institutions it is intended to benefit. Surely our hospitals are not in such straitened circumstances that they are obliged to resort to street-begging for their support. If they are, what becomes of the boasted charity of

England? We do not for a moment doubt that the promoters of Hospital Saturday are thoroughly earnest in their endeavours to promote the fund, and that in introducing the street begging-box system they intended well, but we are obliged to say that they are mistaken. Street-begging, no matter whether of the ordinary character, or in an organised form, is in every way objectionable, and ought to be discouraged. While we shall be happy to support any legitimate measure which may aid so excellent an object as that of the promoters of this mission, we must enter a protest against a scheme which cannot fail to bring any fund for which it is employed into public contempt."

### Poor-law Guardians as Sanitary Executants.

THE comments which we made last week upon the impolicy of confiding the execution of important Acts of Parliament—such as the Public Health Act—to half-educated and unintelligent Poor-law guardians received a cogent illustration last week. Our readers have been made aware that the criminal practice of inoculating small-pox has lately been revived in some districts in Ireland, and some feeble and ineffectual attempts have been made by the guardians to put a stop to the propagation of disease in this way. The institution of prosecutions is vested, as we know, in the guardians; yet we observe that in the Swineford Union an active contingent of the board is not only careless in the matter, but is actually in favour of small-pox inoculation, and would doubtless patronise the practice if the law allowed them to do so. At the last meeting of that board the relieving officer and Drs. O'Grady and Bourke reported on the prevalence of small-pox. The cases were confluent, and of a bad type, and stated that from all they could learn eight cases in Foxford were contracted through inoculation.

Thereupon three of the ratepayers' representatives declared that they were in favour of inoculation, and enunciated their opinion that "vaccination was a perfect failure," and more of the same tenor. A perusal of the reports of proceedings of the guardians in their capacity of sanitary authorities, which we publish from week to week in our Irish Poor-law Supplement, shows that the great majority of these gentlemen hold sanitation and cleanliness in the profoundest contempt. We greatly fear that the light which has been thrown upon the subject by these further utterances afford us no hope that the Public Health (Ireland) System will be saved from the limbo to which the Nuisances Removal and Disease Prevention Acts have been relegated by the incompetence and negligence of their administrators.

### Sanitary Appointments in Ireland.

THE Local Government Board have stated in a letter addressed to the Sligo Board of Guardians—*Firstly*, that a dispensary medical officer *may* hold at the same time the offices of sanitary medical officer and consulting sanitary officer; *secondly*, that the sanitary authority *must* appoint a consulting sanitary officer whether they like it or not; *thirdly*, that the sanitary authority *may* pay its consulting officer by an occasional fee where his advice is asked for if they see fit to do so.

SURGEON-GENERAL C. A. GORDON, M.D., C.B., has sailed for India, to assume his duties as Principal Medical Officer of the Madras Army.

### Ergotin Injections in Prolapsus Ani.

VON LANGENBECK, of Berlin, announces that he has lately been treating prolapsus ani "with astonishing success" by hypodermic injections of a solution of ergotin (five to fifteen parts to one hundred of distilled water). He replaces the bowel, and inserting the point of the syringe about three centimetres in depth in the cellular tissue, throws in from one to two grains of ergotin. This should be repeated every three or four days, for three or four weeks, any hard faecal masses in the bowels being first removed by simple injection.

### The Value of High Powers of the Microscope in the Diagnosis of Blood-stains.

DR. JOSEPH G. RICHARDSON believes that we are now able, by the aid of high powers of the microscope (1-25th and 1-50th), to distinguish stains produced by human blood from those caused by the blood of the ordinary domestic animals, and this even after the lapse of five years. He says that the possibility of recognising blood corpuscles when dried *en masse* is associated with their possession of a cell-wall, which can be brought into view and measured. He says that the variation in size of the corpuscles in a particular animal is comparatively slight in fresh blood, and even in dried blood ought not to prove a difficulty in the hands of a careful microscopist. The red corpuscles of the domestic animals, such as the pig, sheep, ox, goat, horse, &c., are all smaller than those of man. If, therefore, an error were committed in referring a given specimen of dried corpuscles to man or domestic animals, the evidence obtained would only mislead one into assisting in the acquittal of a criminal, and not into aiding to convict an innocent person. It appears then, that there is a doubt remaining besides which few will deny that the ordinary juryman would be slow to credit the ability of a witness to distinguish such small differences. The subject is, however, well worthy of the attention of microscopists.

The method adopted by Dr. Richardson for examining blood-stains is to scrape small particles from the specimen, reduce them to a fine dust upon a slide, cover with thin glass, and then to irrigate the preparation with a 3 per cent. solution of common salt. A drop of aniline is next allowed to come in contact with the blood for half a minute, and thereafter replaced by salt solution.

### The Late Dr. Anstie.

WE have received a carte-de-visite portrait of the late Dr. Anstie from Messrs. Fradelle and Marshall's Medical Gallery. It is in every way a pleasing and characteristic likeness of this accomplished physician, whose premature and sad death we all deplore.

We believe a considerable sum has already been promised for the Memorial Fund.

At a meeting of the Committee of the Hospital Out-patient Reform Association, held at 27 George Street, Hanover Square, it was proposed, by Dr. Alfred Meadows, seconded by Dr. Joseph Rogers, and unanimously resolved:—"That this committee having heard with unfeigned regret of the premature death of Dr. Anstie, desires to express its deep sense of the loss which the

profession has thereby sustained, especially as regards the cause of medical reform, in which he was an earnest and able worker. The committee remembers with gratitude his efforts on behalf of the objects of this association, and appeals with confidence to the members of the association in behalf of the Memorial Fund now being raised to perpetuate the memory of one, who for earnestness of purpose, integrity, and straightforwardness, was a bright example to all who are interested in the cause of medical relief." Mr. H. Nelson Hardy, honorary secretary, proposed that a circular letter embodying the above sentiments should be sent to each member of the association. This was seconded by Dr. James Davison, and carried unanimously.

Dr. Anstie was to have delivered the oration at the Medical Society of London this year.

### Model Lodging-Houses.

THERE are times when the question of the dwellings of the poor seems to come forward with unusual force, and the action of railway increase has undoubtedly been to make the housing of town populations more difficult.

The attempts made in various directions to improve the dwellings of poor citizens have always had our support, though at times we have felt misgivings as to the possible evil that might be mixed up with the good.

Our fears have been increased on finding that they were shared by many to whom we mentioned them, and by some who had watched the results were said to be more than well founded.

We now find that Dr. Meymott Tidy has, in his annual report to the Islington Vestry, come forward with a positive declaration that calls for careful consideration by all philanthropists.

We will give his exact words about model lodging-houses, commending them to the attention of all concerned:—

"I am quite aware that there are not a few who upon a chance visit to our London courts, hold up their hands in utter dismay and astonishment, never having apparently once imagined there were such places before. Anything below a row of artisans' cottages they had never once supposed could be in existence. Where the poor lived, and that some families were compelled by small means to live in a single room, was a matter they had never dreamt of. I can quite understand that the comparison they draw for the first time between a labourer's single room, where everything from cooking to sleeping has to be done, and the luxuriantly furnished drawing-room they had just left, must have been startling. Forthwith (with the experience possibly of this single room, in a single house, of a single court) they commit to press painful and sensational stories respecting 'The Dwellings of the Poor.'

"Far be it from me to say they are all we could wish, but I believe their condition is, as a rule, vastly exaggerated. It is easy enough for philanthropists (I admit the debt we owe them, but that must not shut our eyes to what is erroneous in their creed)—it is easy enough for them to talk loudly, and newspaper editors to write warmly on what the dwellings of the poor are, and what the dwellings of the poor should be. The poor do not want drawing-rooms. If they had them they would not know what to do with them, for they have no use for them. But I am bound to confess (sadly deficient in sanitary regulations as I admit many houses in our poor localities are) that I infinitely prefer them, with all their disadvantages, to the elegant architectural buildings some good philanthropists have erected (all honour to them for doing so, although I believe them mistaken), called *model lodging-houses*. From a social point of view I have reason to know that they are worse than failures. We are told 'they are more pleasing to the eye of the passers-by.' That I admit; and when you



have said that you have said all you can say for them. Cleaner outside they may be, but it is a cleansing only of the outside, and the driving inside of a nest of evils I would rather were external, because, if external, they are easier to cope with. Long, dark passages, with rooms on each side, like so many horse-stalls in a nobleman's stable, tenanted by different families, is not a provision likely to render the poor better, morally, socially or religiously. If you deal with the poor in masses, and house them in such a manner, it is absurd to be astonished when they take the hint and forget what is due to themselves. I am strongly of opinion that congregating the poor in large numbers in these huge erections is a great mistake, and I feel it is my duty as your health officer (while conscious that possibly I shall be misunderstood) to place my opinions before you."

### Pharmacy in Ireland.

It would seem that the Irish chemists and druggists have at length completely broken with the Apothecaries' Hall, with whom they had been so long endeavouring to effect a coalition. They are now throwing themselves into co-operation with the College of Physicians. At the last meeting of the London Pharmaceutical Society, the Secretary having read a communication received from the Chemists and Druggists' Association of Ireland on the subject of extending the Pharmacy Act to that country, the Council resolved itself into a committee to consider this communication, and ultimately the following resolution was unanimously carried:—

"That it is desirable to extend the provisions of the Pharmacy Act to Ireland, and that the Secretary be instructed to inform the Chemists and Druggists' Association of Ireland that, though this Council cannot undertake to frame any measure for this purpose, should such be submitted to the Pharmaceutical Society or Parliament, every consideration would be given to it; and in the meantime the following gentlemen are appointed to conduct, in conjunction with the Secretary, a friendly correspondence with the Chemists and Druggists' Association of Ireland respecting the provisions desirable to be embodied in legislation: The President, Vice-President, Messrs. Betty, Brown, Greenish, Hampson, and Sandford."

### Law for Doctors.

A CORRESPONDENT, Dr. Berry, of Wigan, states in our issue of to-day a very anomalous condition of affairs, but one which arises, we imagine, rather from the unacquaintance of the magistrates with the law, or their prejudice in favour of the lawyers. He narrates that an unqualified medical practitioner escaped punishment because the magistrates of Durham held that the absence of his name from the Medical Register was not sufficient proof that he was precluded from practising. The next week, in the Manchester Police Court, a person was fined for practising as an attorney without certificate, although it was shown that he was acting for a duly-licensed attorney, and although he had had a certificate some time ago.

Our correspondent draws a very just parallel between these cases, and naturally concludes that there is one justice for the doctor, and another for the lawyer, but we have our doubts that the law is as bad as the decision of the Durham magistrates would make it appear to be, and as we have little respect for the legal acumen of such gentlemen, we do not hesitate to say that their reading of the Medical Act was quite wrong. The 40th section declares that "Any person who shall wilfully use . . any description implying that he is registered under this

Act, or that he is recognised by law as physician, &c. . . shall for such offence pay £20."

To our comprehension this clause makes registration the test of qualification, and its absence a *prima facie* proof that legal qualification does not exist. It is greatly to be regretted that such a decision as that given by the Durham magistrates has never been taken to the superior courts, for we believe it would be at once reversed by a more competent and astute tribunal.

THE Chair of Physiology at King's College is now vacant.

SURGEON-MAJOR PORTER, Assistant-Professor of Military Surgery at the Royal Victoria Hospital, Netley, has been presented with the bronze cross by the French Societies for Aiding the Sick and Wounded in War, in recognition of his services during the late Franco-German War.

ON October 1st the regimental hospital establishment at Aldershot ceased to exist, and there are three "Station Hospitals" at the Camp instead. One is at the North Camp, one at the South Camp, and one at the Permanent Barracks, with a medical officer appointed to each.

### American Mineral Waters.

THE *Boston Medical and Surgical Journal* has a somewhat amusing and suggestive article on the fashion of drinking mineral water.

The composition of a famous American sample, called "Nature's Great Remedy," is given as follows:—

ONE UNITED STATES GALLON CONTAINS		
Sulphate of potash	.. ..	0.101 grains.
Chloride of sodium	.. ..	0.447 "
Bi-carbonate of soda	.. ..	0.218 "
Bi-carbonate of lime	.. ..	4.168 "
Bi-carbonate of magnesia	.. ..	0.867 "
Sulphate of lime	.. ..	0.811 "
Silica and alumina	.. ..	0.043 "
Protoxide of iron	.. ..	2.161 "
Organic matter ("crenic acid")	.. ..	2.888 "

From which it appears that every gallon contains 11.674 grains, or 1-40th of an ounce of mineral matter, &c., and is therefore about the same strength as that found in most of the wells in the neighbourhood of Boston.

To manufacture "Nature's Great Remedy" at home, for those whose well-water is not sufficiently impure, a recipe is given corresponding with the above quantities, but it is humorously suggested that if protoxide of iron be not readily obtained without troubling the market, it may be easily furnished by stirring the mixture with an iron spoon, or allowing a board nail to remain in the mixture over-night. This is hardly fair—even in fun. The advocates of the water might just as well tell our learned contemporary to let his patients eat with an iron spoon instead of taking chalybeate mixtures. Another water from the same company contains less of the minerals, according to the State assayer, but "it is highly charged with sulphuretted hydrogen." This, it is said, can be "easily obtained by using for a vehicle the water from some well near to which runs a drain." Again, we may object that this is not a fair comment. Sulphuretted hydrogen is not sewer-gas, though the former is sent in the latter.



## STUDENTS' COLUMN.

## LESSONS ON PRESCRIPTIONS AND THE ART OF PRESCRIBING. (a)

By W. HANDSEL GRIFFITHS, Ph.D., L.R.C.P.E.,  
Licentiate of the Royal College of Surgeons of Edinburgh, Honorary  
Member of the Ontario College of Pharmacy, Librarian to  
the Royal College of Surgeons in Ireland.

## LESSON VII.

## POSOLOGY.

WE have to-day to consider the extremely important subject of dosage. It is very necessary for you at the outset to understand that a medicine will exert a very different effect according to the dose administered; thus, tartar emetic in doses of from 1-16th to 1-6th of a grain acts as a diaphoretic; in doses of from 1-6th to  $\frac{1}{2}$  grain it will act as a depressant; and in doses of from 1 to 2 grains it will produce emesis.

There is one matter of great interest and import connected with posology to which sufficient attention is not paid by the generality of practitioners—I allude to the modification of action exercised by a medicinal agent according as it is administered in one large dose or in several small doses at stated intervals. We have yet much to learn concerning this matter, and the subject opens up for you a wide field for original investigation. One of the most pungent writers in one of the most incisive articles which ever issued from his pen thus expresses himself: "No greater service could be performed by the colleges or the great medical societies than the formation of a committee of competent men for the special investigation of this question of dosage; for it is a subject which is as yet only in its infancy, and the best knowledge which exists about it is undoubtedly confined to a very small section of the medical profession."

I have recently published, for the use of students and practitioners, a posological chart, (b) in which I have endeavoured as far as possible to assist the memory and to facilitate reference. I purpose in this lesson to give you such a summary of the contents of this chart as will enable you to obtain and retain such a knowledge of official dosage as will be sufficient for the exigencies of ordinary practice. I use the term "official dosage" advisedly, for exception must be taken to many of the posological dicta of the British Pharmacopœia. For instance, the Pharmacopœia directs as a maximum dose of tincture of digitalis 30 minims, whereas, half an ounce is not unfrequently given in delirium tremens. A drachm is the maximum dose recommended for tincture of henbane, but half-an-ounce of that preparation is often given with benefit to maniacal patients. The minimum dose stated for tincture of belladonna is too large, and the maximum dose is too small. On the other hand, the maximum dose recommended for tincture of nuxvomica would tetanise many a patient. A drachm is allotted as the maximum dose of succus conii, but I have myself seen an ounce of that preparation administered with great benefit. The Pharmacopœia specifies 5 grains as the extreme dose of sulphate of quinine, a dose which would be utterly useless in many cases of intermittent fever, &c. Again, the minimum dose recommended for strychnia and the salts of morphia is much too large.

Less than a year ago the late Dr. Anstie directed the attention of the profession to these defects in our "official dosage." (c) You will understand, therefore, that although in apportioning doses I have followed the British Pharmacopœia as an authority, I dissent in many instances from the recommendations in that volume. The doses

which I am about to give are those for adults, so that I will ask your attention to the methods of Gaubius and Young for regulating doses according to age.

## GAUBIUS' METHOD OF REGULATING DOSES ACCORDING TO AGE.

Ages.	Proportional Quantities.	Doses.
<i>For an adult</i>	<i>suppose the dose to be.</i> 1	<i>or 60 grains.</i>
Under 1 year .	will require . 1-12	5 "
" 2 years .	" . $\frac{1}{8}$	7 $\frac{1}{2}$ "
" 3 " .	" . $\frac{1}{6}$	10 "
" 4 " .	" . $\frac{1}{4}$	15 "
" 7 " .	" . $\frac{1}{3}$	20 "
" 14 " .	" . $\frac{1}{2}$	30 "
" 20 " .	" . $\frac{2}{3}$	40 "
Above 21 " .	the full dose . —	60 "
" 65 " .	the inverse gradation of the above	

## YOUNG'S METHOD OF REGULATING DOSES ACCORDING TO AGE.

"For children under twelve the doses of most medicines must be diminished in the proportion of the age to the age increased by 12." Thus:—

$$\begin{aligned} \text{For one year, } \frac{1}{1+12} &= \frac{1}{13} & \text{For four years, } \frac{4}{4+12} &= \frac{1}{4} \\ \text{For two years, } \frac{2}{2+12} &= \frac{1}{7} & \text{For six years, } \frac{6}{6+12} &= \frac{1}{3} \\ \text{For three years, } \frac{3}{3+12} &= \frac{1}{5} & \text{\&c.} & \text{\&c.} \end{aligned}$$

Not only must age be taken into consideration in apportioning a dose, but sex, habit, temperament, idiosyncrasy, disease, race, and climate must all receive due consideration. It is unnecessary for me to do more than remind you that certain drugs, as opium, are very badly borne by children.

In the following posological summary I will adopt the classification which I have used in my chart.

## INORGANIC SUBSTANCES.

## METALLOIDS.

Carbo ligni . . .	} gr. xx.—3.
" animalis pur. . .	
Sulphur sublimat. . .	} gr. xx.—3.
" præcipitat. . .	
" Iodidum . . .	gr. $\frac{1}{2}$ —ij.
Phosphorus . . .	gr. 1-40th—1-10th.
Iodum . . .	gr. $\frac{1}{2}$ .

## ACIDS.

Dilute acids, average dose ℥v.—xx, except acid. hydrocyanic. dil., the dose of which is ℥ii.—viii., and acid. acetic. dil., the dose of which is ʒi.—ii.

The dose of acid. sulph. aromat. is the same as that of the dilute acids.

The dose of acid. sulphurosum is ℥xxx.—ʒj.

The following are the doses of the solid acids:—

Acid Arseniosum . . .	gr. 1-60th—1-12th.
" Carbolic. . . .	gr. i.—iii.
" Tannic. . . .	} gr. ii.—x.
" Gallic. . . .	
" Benzoic. . . .	gr. x.—xv.
" Citric. . . .	} gr. x.—xxx.
" Tartaric. . . .	

## SALTS OF THE ALKALIES.

Ammonium.—Dose of all the salts is gr. v.—xx, except the carbonate, the dose of which, as a stimulant, is gr. iii.—x, and as an emetic, gr. xxx., well diluted.

Potassium.—The dose of sulphurated potash is gr. iii.—vi.; that of iodide of potassium is gr. ii.—x; that of the

(a) Corrected from shorthand notes by one of the author's pupils.

(b) "Posological Tables: being a Classification of the Doses of all Official Substances." Second Edition. London: Baillière, Tindall, and Cox, King William Street, Strand.

(c) Practitioner, vol. ix., p. 259. 1873.

bromide, carbonate, chlorate, and nitrate is gr. v.—xxx.; that of the bicarbonate is gr. x.—xl.; and that of the acetate, citrate, sulphate (*purgative*), tartrate, and acid tartrate is gr. xv.—3. The dose of either of the two latter salts when they are used as *purgatives* is ʒii.—iv.

*Sodium*.—Arsenate, gr. 1-16th— $\frac{1}{2}$ ; valerianate, gr. i.—v.; hypophosphite, gr. v.—x.; dried carbonate, gr. iii.—x.; carbonate, gr. v.—xxx.; acetate, biborate, bicarbonate, and sulphite, gr. x.—3; effervescing citro-tartrate, ʒi.—ii.; tartarated soda, ʒii.—iv.; and phosphate and sulphate, ʒii.—3.

*Lithium*.—Carbonate, gr. iii.—vi.; citrate, gr. v.—x.

#### SALTS OF ALKALINE EARTHS.

*Barium*.—The dose of the chloride is usually given in text-books as gr.  $\frac{1}{2}$ —ii.; this, however, is much too large a dose; it should not be administered in doses exceeding gr. 1-16th—1-12th.

*Calcium*.—The dose of the hypophosphite of lime is gr. v.—x.; that of the chloride and phosphate is gr. x.—xx.; and that of the precipitated carbonate and of prepared chalk is gr. x.—3.

*Magnesium*.—The dose of magnesia and of carbonate of magnesia is gr. x.—3; that of sulphate is ʒi.—iv.

#### SALTS OF THE EARTHS.

*Aluminum*.—Alum as an *astringent* is given in doses of gr. x.—xx., and as a *purgative* gr. xxx.—3.

#### SALTS OF THE METALS PROPER.

*Antimonium*.—The dose of tartar emetic as a diaphoretic is gr. 1-16th—1-6th; as a depressant, gr.  $\frac{1}{2}$ — $\frac{1}{2}$ ; and as an emetic, gr. i.—ii. The remaining preparations of antimony—viz., black antimony, oxide of antimony, and sulphurated antimony—are all given in doses of gr. i.—iv.

*Argentum*.—Nitrate, gr.  $\frac{1}{2}$ — $\frac{1}{2}$ ; oxide, gr.  $\frac{1}{2}$ —ii.

*Bismuthum*.—Oxide, gr. v.—xv.; carbonate and sub-nitrate both gr. v.—xx.

*Cerium*.—Oxalate, gr. i.—ii.

*Cuprum*.—Sulphate, gr.  $\frac{1}{2}$ —ii., or, as an *emetic*, gr. v.—x.

*Ferrum*.—Arsenate, gr. 1-16th— $\frac{1}{2}$ ; dried sulphate,  $\frac{1}{2}$ —iii.; sulphate, granulated sulphate, reduced iron, and iodide of iron, all gr. i.—v.; tartarated iron, phosphate, magnetic oxide, citrate of iron and quinine, citrate of iron and ammonia, all gr. v.—x.; saccharated carbonate, gr. v.—xx.; hydrated peroxide, gr. v.—xxx.; and moist peroxide, ʒii.—iv.

*Hydrargyrum*.—Perchloride, gr. 1-16th— $\frac{1}{2}$ ; red iodide, gr. 1-16th— $\frac{1}{2}$ ; green iodide, gr.  $\frac{1}{2}$ —iii.; subchloride, gr.  $\frac{1}{2}$ —v.; hyd. c. creta, gr. iii.—viii.

*Manganesium*.—Sulphate as a *purgative*, ʒi.—ii.

*Plumbum*.—Iodide, gr.  $\frac{1}{2}$ —i.; acetate, gr. i.—iv.

*Zincum*.—Chloride, gr.  $\frac{1}{2}$ —i.; acetate, as a *tonic*, gr. i.—ii.; sulphate, as a *tonic*, and valerianate, gr. i.—iii.; carbonate, gr. i.—v.; oxide, gr. ii.—x.; acetate, as an *emetic*, gr. x.—xx.; sulphate, as an *emetic*, gr. x.—xxx.

#### ORGANIC SUBSTANCES.

##### VEGETABLE PRODUCTS.

*Elaterium*.—Sediment from juice of fruit. gr. 1-16th— $\frac{1}{2}$ .

*Capsicum*.—Fruit.

*Digitalis*.—Leaf.

*Podophyllum*.—Resin.

*Rhus Toxicodendron*.—Leaf.

*Ipecacuanha* (*expectant*).—Root.

*Opium*.—Inspissated juice of fruit.

*Cambogia*.—Gum-resin.

*Nux Vomica*.—Seeds.

*Scilla*.—Corm.

*Veratrum Viride*.—Rhizome.

*Stramonium*.—Leaf.

*Aloes*.—Inspissated juice of leaf.

*Jalapæ Resina*.

*Lupulin*.—Powder of scales.

*Aconitum*.—Leaf.

*Colchicum*.—Corm.

*Colocynth*.—Pulp.

*Conium*.—Leaf.

*Piper*.—Berries.

*Sabina*.—Tops.

*Sagapenum*.—Gum-resin.

*Scammonium*.—Resin and gum-resin.

*Staphisagria*.—Seeds.

*Camphora*.—Concrete volatile oil. gr. i.—x.

*Myristica*.—Seeds. gr. v.—xv.

*Balsamum Peruvianum*. M v.—xv.

*Ammoniacum*.—Gum-resin.

*Assafoetida*.—Gum-resin.

*Benzoinum*.—Balsam.

*Calumba*.—Root.

*Cardamomum*.—Seeds.

*Caryophyllum*.—Flower-buds.

*Pimenta*.—Berries.

*Podophyllum*.—Root.

*Quassia*.—Shavings.

*Rheum*.—Root.

*Serpentaria*.—Root.

*Styrax Preparatus*.—Balsam.

*Tolutanum*.—Balsam.

*Canella*.—Bark.

*Cascarilla*.—Bark.

*Catechu*.—Extract of leaves.

*Cinnamomum*.—Bark.

*Coriandrum*.—Fruit.

*Ergota*.

*Galbanum*.—Gum-resin.

*Gentiana*.—Root.

*Guaiaacum*.—Resin.

*Ipecacuanha* (*emetic*).—Root.

*Jalapa*.—Root.

*Kino*.—Inspissated juice.

*Lactucarium*.—Inspissated juice.

*Myrrha*.—Gum-resin.

*Simarubra*.—Root-bark.

*Terebinthina Canadensis*.—Oleo-resin.

*Uva Ursi*.—Leaves.

*Valeriana*.—Root.

*Zingiber*.—Rhizome.

*Bucco*.—Leaves.

*Cusparia*.—Bark.

*Mastiche*.—Resin.

*Ruta*.—Leaves.

*Absinthium*.—Flowering herb.

*Cinchona*.—Bark.

*Copaiba*.—Oleo-resin.

*Cortex Winteri*.—Bark.

*Krameria*.—Root.

*Matico*.—Leaves.

*Pareira*.—Root.

*Santonica*.—Flower-heads.

*Senega*.—Root.

*Sumbul*.—Root.

*Termentilla*.—Rhizome.

*Cassia*.—Pulp.

*Crocus*.—Stigma.

*Cubeba*.—Fruit.

*Filix*.—Rhizome.

*Kamela*.—Powder of capsules.

*Senna*.—Leaves.

*Spigelia*.—Root.

*Cusso*.—Flowers and tops.

*Manna*.—Concrete exudation.

*Sinapis* (*emetic*).—Seeds.

*Areca*.—Seed. ʒss.—3.

*Tragacantha*.—Gummy exudation. gr. xx., up.

*Acacia*.—Gummy exudation. Ad lib.

gr. ii.—viii.

gr. x.—xx

gr. x.—xxx.

gr. x.—xl.

gr. x.—3.

gr. xxx.—ʒii.

ʒii.—iv.

gr. ii.—v.

Substances printed in italics in the foregoing list are not now official.

SALTS OF ORGANIC BASES, ALKALOIDS, AND OTHER  
ACTIVE PRINCIPLES.

*Digitalinum.* gr. 1-60th—1-30th.

*Strychnia.* gr. 1-30th—1-12th.

*Veratria.* gr. 1-12th—1-6th.

*Morphiæ Acetas.*

*Morphæ Hydrochloras.*

} gr.  $\frac{1}{2}$ — $\frac{1}{4}$

*Santoninum.* gr. ii.—vi.

*Quiniæ Valerianas.*

*Quiniæ Sulphas.*

*Cinchoniæ Sulphas.*

*Cinchoniæ Hydrochloras.*

*Cinchonidinæ Sulphas.*

*Beberis Sulphas.*

} gr. i.—x.

HYDROCARBONS AND ALCOHOLIC BODIES, ETC.

*Chloral Hydras.* gr. v.—xxx.

*Creosotum.* ℥i.—iii.

*Chloroformum.* ℥iii.—x.

*Æther.* ℥xx.— $\mathfrak{z}$ i.

*Æther Aceticus.* ℥xx.— $\mathfrak{z}$ .

*Acetum.*

*Glycerinum.*

}  $\mathfrak{z}$ i.—ii.

*Cerevisiæ Fermentum.*  $\mathfrak{z}$ iv.— $\mathfrak{z}$ .

*Amyl Nitris.* ℥ii.—v. *To be inhaled with caution.*

ANIMAL PRODUCTS.

*Castoreum.*

*Fel Bovinum.*

*Moschus.*

} gr. v.—x.

*Pepsina.* gr. xv.—xx.

*Pepsina Perci.* gr. ii.—iv.

(To be continued.)

## Literature.

### STATISTICS OF FAMILIES IN THE UPPER AND PROFESSIONAL CLASSES. (a)

THE author of this interesting little work is an actuary of the National Life Assurance Company. He tells us that in 1871 the directors of this society found they had no data as to the rate of mortality prevailing among children in the upper and professional classes sufficiently extensive and reliable to render it prudent to use them as a basis on which to found the necessary tables of premiums. It was decided, as being the safest course, to endeavour to collect, by direct communication with a sufficient number of parents in the station of life alluded to, accurate particulars as to the dates and birth and death of their own children, and of their brothers and sisters, and from this information to construct a table of mortality.

Applications, in the form of a lithographed letter, stating the object of the inquiry, were addressed to members of the clerical, medical, and legal professions, and to a large number of other gentlemen and noblemen in England and Wales, and forms were attached which the persons addressed were requested to fill up. These forms were two in number—the first adapted for information relative to the informant's own children, whether the issue of one or more marriages; the other for information respecting the issue of the marriage of his father or mother—i.e., his brothers' and sisters.

In a great majority of the cases the particulars appear

(a) "Statistics of Families in the Upper and Professional Classes." By Charles Ansell, Jun. London: Layton, Fleet Street. 1874. Pp. 88.

to have been stated with so much care and attention as to leave no reasonable doubt of their complete reliability. One gentleman, after stating the particulars of his somewhat numerous offspring, winds up by a pictorial illustration of his satisfaction at there being no prospect of a further increase.

Of the 49,099 children of which full particulars were given, there were born alive 24,640 males and 23,400 females, and born dead 627 males and 432 females.

The Northampton tables were drawn up by Dr. Price, from births and deaths in Northampton from 1735 to 1780, the Carlisle table was published in 1815; and the Equitable Assurance table is founded on 21,398 persons assured in its books.

It has long been known that the death-rate of the more comfortable classes is far lower than that of the poorer. The expression "struggle for existence" well expresses the difficulty the lower classes have in keeping their children alive, and the writings of Malthus and Mill have made this point very clear.

Any large community, whether town or country, are mainly composed of the poorer classes, or the working classes, and hence the average rate of mortality of society at large approximates far more to that of the working classes than to that of the wealthy classes. Poor food and clothing, crowded dwellings, drink, and neglect are, of course, common among the poor. "When the dominant feeling of parents with regard to their children is that they are a burden to them, the chances of the latter succumbing to the perils of infancy and childhood are seriously increased." In many instances the poorer classes have a direct pecuniary interest in the death of their children when they belong to insurance offices.

Comparing the mortality of the two sexes, as shown by the *upper class* experience, it will be seen that, with the exception of a short interval at about the age of two, the female mortality is less than that among males from birth up till ten; that from ten to seventeen the male death-rate is considerably lower than the female; and after that age the mortality among females is materially lower than among males. In the *English Life* tables the death-rate of females between nine and thirty-eight is higher than males of the same ages. This is because among the upper and professional classes it is upon men that the wearing toil and anxieties of life chiefly press.

The mean age at marriage, as disclosed by the upper class tables, is very high, and is about thirty for males and twenty-five and a half for females.

The average number of children to a marriage is a most important feature in this table. Some couples had 18 children, and even 25 in one case. Clergymen seem, as a rule, to have 5.25 children, lawyers 5.18, and doctors 4.82.

Child-bearing in a few cases did not terminate until the age of fifty-three; but thirty-eight years is the mean age of mothers at the date of the birth of their last child.

The mortality deduced from the upper class data is to that of the Carlisle table in the proportion of 52 to 100 under one year of age; 26 to 100 between one and five; 61 to 100 between five and fifteen; 104 to 100 between fifteen and twenty-five; 91 to 100 between thirty-five and forty-five; 77 to 100 between forty-five and fifty-five; 71 to 100 between fifty-five and sixty-five; and 81 to 100 between sixty-five and seventy-five.

By the upper class tables the mortality is equal at the age of one and of sixty-nine; in the *English Life* tables it is equal at one and seventy-two. In the former table the rate of mortality at twenty-four equals that at fifty-six; in the latter that at sixty-five. In the former the mortality at three equals that at thirty-six; in the latter that at fifty-nine. Every writer on hygiene and statesmen should read this valuable work.

THE Professorship of Comparative Anatomy and Zoology at University College is vacant through the death of Dr. Grant.

## Correspondence.

### THE LAW FOR LAWYERS *VERSUS* THE LAW FOR DOCTORS.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—On September the 26th, Mr. John Le Page was charged before the magistrates of Durham with having unlawfully, wilfully, and falsely used the name and title of surgeon in the township of Brandon and Byshottles, implying thereby that he was registered under the Medical Act of 1858, and contrary to sec. 40 of the said Act. The case against him was dismissed, it being held, as had been on a previous occasion, in the case of *Pedgrift v. Chevalier* (*Law Times*, vol. ii., p. 360), that the mere fact of absence of a person's name from the "Medical Register" was not sufficient to warrant a conviction under the section of the Medical Act. This man had wily engaged a qualified assistant, and both had signed the certificates.

On October the 5th, Mr. Robert Dalton Law was charged at the Manchester City Police Court, under the 37th and 38th Vict. cap. 68, sec. 12, with practising as an attorney without being in possession of the requisite certificate.

It was proved that he had acted without fee or reward, having appeared in a case for a duly licensed attorney; yet he was convicted, and fined £5, with the alternative of a month's imprisonment, the magistrate stating he had practised in the court on previous occasions; the full penalty of £10 would have been inflicted had he not acted for another, and this being the first case under the new Act.

Mr. Law had previously held a certificate, but owing to some circumstance or other had not one at the present time; he would therefore be similar to a medical man who had been erased from the "Register."

It is not long ago since a gentleman whose name had been removed from the "Medical Register" was summoned before the presiding magistrate at one of the London police-courts for practising as a surgeon, and the case was dismissed. These cases are analogous; yet in the one case we have a conviction, and in the other a dismissal.

We do occasionally hear of Justices' Justice, and here we have something in the same category. If a man violates the law of his country, why is he not punished accordingly?

Why have we a conviction in the one case and not in the other?

Why should lawyers be protected any more than doctors?

Why should medical men be compelled to register before holding any appointment, and pay £5 for such registration?

Of what use is medical registration at all if no protection is afforded?

Lastly, what will warrant a conviction against an offender if his name be absent from the "Register" and he fails to produce a medical qualification?

Now, Mr. Editor, is it not high time that there was some legislation in the matter? Does not the Medical Act of 1858 require amending, or another Act substituted, giving the medical profession some protection?

Can we ever hope to abolish quacks and quackery while the law is so flagrant on the subject? It is only a few weeks since a bone-setter's evidence was tendered and accepted in a court of law, and accepted, I presume, as scientific evidence. Doesn't the fact of a judge allowing this show his high appreciation of the medical profession?

Now, Sir, it is quite time irregular practitioners were put down by the strong arm of the law; but what can be done while the law stands as it is at present? Though one is willing to undertake the expense of a prosecution, a conviction is seldom attainable under the present Act. Can nothing be done? Is it not possible to get a bill passed amending the Medical Act of 1858, and afterwards legislate for the admission of members into the profession?—whether it be through the one portal system or through the many we have at present, with another added, as the C.M.B., matters not. We should first seek to have the rights of the existing members of our profession protected.

I am, Sir, yours, &c.,

WM. BERRY, M.R.C.S.

Wigan, October 8th, 1874.

### URÆMIC CONVULSIONS SIMULATING EPILEPSY.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

DEAR SIR,—I would feel obliged by your publishing the following rather remarkable case in your valuable journal:—

On the 25th of September, 1872, whilst serving as surgeon on board H.M.S. *Research*, off the coast of Spain, I was hastily summoned from the ward-room to see John Ellis, æt. 33, gun-room steward, who had been seized with a fit whilst asleep on his chest in the steerage. I found him writhing in what appeared to be a well-marked attack of epilepsy. He was lying on the lower deck, tossing about convulsively, and frothing at the mouth; the pupils were dilated, face pallid and covered with a cold clammy perspiration. I unfastened the clothes from about his neck, dashed cold water in his face, and then waited to see him return to consciousness. This however, as will be seen, he never did. After some time spent in vain efforts to subdue, as we supposed, the epileptic seizure, both the staff-surgeon, Dr. O'Malley, and myself thought it better to have the patient brought to the sick bay, which was accordingly done. Every possible inquiry was made as to previous history, but we found it extremely difficult to obtain any reliable information from his messmates. No person seemed to know whether there had been any complaint of illness. The midshipman told me that Ellis had been in the habit of drinking about four glasses of rum daily for the last year and a half, or two years. After patient had been placed in bed a catheter was introduced into the bladder. No urine, however, made its appearance; this confirmed the diagnosis, previously arrived at by Dr. O'Malley and myself, that the case was one of congestion of the kidneys, causing suppression of urine, and the consequent circulation of urea in the blood, uræmic convulsions. Acting upon this opinion, every possible means were taken to get the kidneys to act. A hot bath was ordered, followed by a large enema of turpentine, castor-oil, and tepid water; friction, dry cupping, and constant turpentine stupes were used over both kidneys, but without avail.

Sept. 27.—Passed during the night about 5iv. of highly coloured urine, which was, on the application of heat and nitric acid, found loaded with albumen. Patient continued in much the same state; pupils were now contracted, face flushed, continually wanting to get of bed—indeed, so energetic were his movements, that it required a couple of strong men to restrain him; bowels were moved unconsciously, sordes appeared on the teeth and gums, scarcely any urine was passed, and low muttering delirium, with those certain harbingers of death, *flores attacis*, and *subultus tendinum*, set in during the night. It is unnecessary to continue a daily summary of this patient's case; suffice it to say that all efforts to relieve the kidneys were unavailing, death taking place on the 1st October, after an illness of seven days. A post-mortem was made under great difficulty, as, owing to the extreme heat of the weather, the body would not be permitted to remain on board more than six hours. Both kidneys were found enormously enlarged and congested, the right more particularly, and a number of small circumscribed abscesses were detected in each; the capsules were thickened and surrounded with a large quantity of fat; the liver was pale in colour, and hard, a good example of lardaceous disease. The captain would not allow us any more time, so we had to rest content with the very cursory inspection of the body which I have described. Greatly to our disappointment, we were unable to examine the condition of the encephalon and its contents. This case is, in my opinion, extremely interesting and instructive; it points out—1st. The great similarity between epileptic and uræmic convulsions; 2nd. The difficulties which sometimes attend a proper diagnosis between these two diseases in the absence of any history; 3rd. How long and continued drinking will infallibly cause extensive disease of both liver and kidneys; and 4th. The uselessness of any treatment, no matter how energetic, once the congestion has for any length of time established itself.

I am, yours truly,

EDWARD C. THOMPSON, M.B.

Infirmary, Omagh, 1st October, 1874.

## Medical News.

University of Cambridge—Dr. Bradbury, Lecturer in Medicine, gives notice that he will lecture

in the Old Anatomical Schools, on Tuesdays at 10 a.m., during the Michaelmas Term, commencing on Tuesday, October 13th. The Professor of Anatomy (Dr. Humphry) commenced his course of lectures on Practical Anatomy on Thursday, October 8th. The course on Anatomy and Physiology will commence on Friday, Oct 23rd. The latter course is intended for students in natural science, as well as for students in medicine, and is open without fee, except to those requiring a certificate.

**Promotion in the Indian Army**—Under the authority of the Secretary of State for India, it is notified that, although a certain period of regimental service is not required by the Royal Warrant of July 1st, 1873, as a necessary qualification for promotion to the administrative grade of the Medical Department, it will still rest with the Government of India to select for promotion to that grade officers possessing sufficient regimental experience to enable them to exercise supervision over military hospitals and regimental military staffs.

**South London School of Pharmacy**—On Wednesday, the 7th inst., the formal opening and distribution of prizes took place in the new and magnificent laboratory of this popular institution. Mr. Baxter, in distributing the prizes, delivered a short address of encouragement and advice to the large body of students assembled, taking as his text the motto of the school, "Systema Omnia Vincit," by which their labours would be aided and fostered. As a proof of the popularity of the school, and the value of its teaching, he mentioned that during the past session no less than 298 pupils passed the official examination of the Pharmaceutical Society, including six medical officers of health and eight purely analytical students. He then announced the following prizes: The Herbarium Prize of £5 to Mr. James Epps, of London; bronze medals to Mr. Cumine, of Southport, Mr. Fowler, of Torrington, Mr. Webb, of Chester; and seven certificates of merit to other students.

**Alarming Outbreak of Scarlet Fever in East London.**—At the last meeting of the Mile End Vestry a letter was received from the schoolmistress of an establishment for infants in the district, stating that three children formerly attending the school had died from scarlet fever. In spite of every precaution several other children had contracted the disease, and were away from the school. The writer added that she could not help thinking that the drainage, together with the overcrowded and dirty condition of some of the houses, tended to spread, if not to induce fever. In one house quite close to the school a child was lying dead, and yet six persons were sleeping in the same room. In reply to questions, Dr. Corner, the medical officer of health, stated that there had been a considerable number of deaths from scarlet fever in the district; but he failed to find evidence of great overcrowding. It was eventually decided to forward copies of the report sent up by a committee recommending disinfection of the house and the schoolmistress's letter to the School Board. At the weekly meeting of the Mile End board of guardians it was resolved, on the suggestion of Dr. Loane, the house doctor, to prohibit the friends of the inmates from visiting whilst the scarlet fever was so prevalent. In the Poplar district, comprising the three parishes of Bow, Bromley, and Poplar, a total of 48 cases of scarlet fever had been reported to the sanitary committee, of which 23 had proved fatal. Fourteen fatal cases were reported to the St. George's East Vestry at their last meeting, whilst in the Whitechapel district fevers of all kinds are prevalent, the enteric type predominating. At each of the boards general sympathy was expressed, and it was ordered that disinfectants in every instance be supplied, and that where necessary, to prevent the fever spreading, the bedding, &c., be entirely destroyed.

## Gleanings.

### Aneurism mistaken for Asthma.

THE proceedings of the San Francisco Medical Society refer to a case of death from aneurism, which was reported as "Asthma" by an ignoramus with a bogus diploma, or with no diploma at all. Similar cases, however, have occurred under the charge of regular and experienced physicians, who have failed to trace the asthmatic condition to its true source. It is only

by post-mortem examination that the true nature of the lesion has been ascertained. We are confident that many of the deaths attributed in past years to asthma, would have been proved to result from aneurism had an examination been made.—*Pacific Medical Journal*.

### Apthous Stomatitis communicated to Man through the Milk of a Cow affected with the same Disease.

THE symptoms commenced in less than half an hour after the ingestion of the milk. They consisted in vertigo, tingling in the ears, feebleness, afterwards delirium and hallucinations. On the second day, vomiting and diarrhoea, with abdominal pains set in, which promptly yielded to treatment by opium and subnitrate of bismuth. The fever, however, was not broken, and on the third day stomatitis appeared, with pyalism and the development of apthae on the inner surface of the lips and cheeks, on the palate, and the inferior surface and borders of the tongue. At the same time, there appeared a phlyctenular eruption on the hands, feet, perineum, and scrotum. The nervous disturbances, delirium, and insomnia were combated by opium, given in doses of fifteen centigrammes per diem, and the stomatitis by gargles of chlorate of potash. At the end of fifteen days the patient recovered. A remarkable detail of this observation, made by Dr. Van Varys, is that the wife and children of the patient had drunk milk from the same cow, and were not affected. At that period, an epidemic of apthous stomatitis reigned among the horned cattle in the country, and the milk of these animals was used, notwithstanding its virulent properties. The difference in the results Dr. Van Varys attributes to the fact that the milk drunk by the patient's family had previously been boiled. Experiments made by a veterinary surgeon of Nievre have demonstrated that milk subjected to a temperature of more than 80° loses its virus.—*New York Med. Jour.*

### Puerperal Mania—Treatment by Chloral and Bromide of Potassium.

THE patient, aged thirty years, had been suffering severe anxiety, previous to and during labour, from some domestic trouble. The position was transverse, and delivery accomplished by version. Following the labour were severe after-pains, for which morphia was administered. That night the pulse ran up to 130 per minute, the temperature to 102½°, and with this fever marked delirium set in. The delirium continued for two nights and one day, when the treatment, which had been morphia with veratrum viride, was changed to bromide of potassium with hydrate of chloral. Two hours after the latter remedies had been administered the patient slept, and on awaking was perfectly rational. This improvement continued.—*New York Med. Jour.*

### Delirium Tremens.

THE standard prescription for this condition at the Roosevelt Hospital, New York, is—

R Chloral hydrat., grs. xxx.,  
Potass. brom., grs. xl.

To be given at bed-time and continued through the day in smaller doses if necessary.

### Abortive Treatment of Boils.

THE *Cincinnati Lancet and Observer* has a note from Dr. C. B. Hall, stating that the following, applied to boils with a camel-hair pencil or feather, gives great relief in a very short time: Tincture of arnica flowers, 1 drachm; tannic acid, half a drachm; powdered acacia, half a drachm. The inflamed surface, and a little beyond all around, should be painted with the medicine every fifteen minutes, or as fast as it dries, till a good thick coating covers the part. The throbbing, tensive pain, and the intense tenderness will be promptly relieved; the redness will subside; the smooth, shining integument will shrink and become wrinkled, and comfort will succeed torment. If the boil be in the first stage, it will disappear without sloughing. If sloughs have already formed, it will be quickly separated, and the cure will be soon complete. The preparation should be used as soon as prepared.

### Chlorhydrate of Trimethylamin in Rheumatic Fever.

A NEW successful instance of the above has been communicated to the Therapeutical Society of Paris by Dr. Martineau. When called to the patient he found that the elbow had, since the morning, become red, enlarged, and painful, skin hot, pulse 90. Ten grains of the drug were administered.



The pain in the elbow had entirely disappeared, and the pulse had fallen from 90 to 65. No crisis or cardiac complication had occurred. The same treatment had been equally successful in a similar attack a year previously.

#### Treatment of Zona by Collodion and Morphia.

DR. BOURDON, Hôpital la Charité, after having tried a great many local means for treating the above disease, and checking the intense pain, has definitely adopted the following plan. Without opening the vesicles, he paints all the diseased surface with a combination of collodion and morphia—collodion one ounce, morphia eight grains. The mixture must be put on pretty thickly. The pain ceases from the second day, and at the end of seven or eight days, when the layer of collodion is removed, all the vesicles have disappeared, and there remains only a slight local redness.

#### Application for Burns.

M. LEBIGOT recommends the following mixture as having been very successful:—Cape aloes, four ounces; water, ten ounces; alcohol (90°), three ounces. The ingredients are to be melted together in a china plate over a slow fire, allowed to cool, and then filtered; after which three more ounces of alcohol are to be added. It is then ready for use. A tablespoonful of the mixture mixed with a teaspoonful of acetate of lead and twenty tablespoonfuls of water constitutes an excellent remedy. It is to be applied morning and evening on the burnt parts. —*Lancet*

#### Acute Articular Rheumatism.

At the Charity Hospital, New York, the following is in use as a local application:—

R Tinct. opii, ℥i;  
Spiritus chloroformi, ℥iss.;  
Linimenti saponis, ad Oj.—M.

This liniment is applied freely to the joints and immediately covered with cotton and oiled silk. The relief from pain afforded by this application has been gratifying. —*New York Medical Record*.

## NOTICES TO CORRESPONDENTS.

83 CORRESPONDENTS requiring a reply in this column are particularly requested to make use of a *distinctive signature or initials*, and avoid the practice of signing themselves "Reader," "Subscriber," "Old Subscriber," &c. Much confusion will be spared by attention to this rule.

SURGEON DUNNE, Dublin.—Communication declined with thanks.

DR. PROSSER JAMES and MR. LUNN on the VOICE.—In reference to a remark of Mr. Lunn's in his article "On the Voice," in our number for August 26, we are requested by Dr. Prosser James to say that the words quoted by Mr. Lunn formed part of the record of a case selected for publication in the "Reports on Diseases of the Throat," and that the opinion expressed was not endorsed in the report, but simply reproduced.

Dr. P. J. would have noticed this earlier, but having only lately returned from the Continent, had not seen our journal during August and September.

MEDICAL SOCIETY OF LONDON.—The opening of the winter session of this society, announced in our last for the 9th inst., should read the 19th.

FOTHERGILLIAN GOLD MEDAL.—The Medical Society of London announces the following subjects for competition in March, 1875, for this valuable prize: "The Diseases of the Testicle and the Spermatheca Cord." The subject for March, 1876, is, "On Cataract and its Treatment." Particulars of the competition will be found in our advertising columns.

CHEAP BOARDING FOR HOUSE-SURGEONS.—The authorities of the Carmarthen Infirmary advertise for a resident medical officer at a salary £100 per annum, with board, lodgings, &c., or £120 without board. Truly the *cuisine* and its appendages must be of a luxurious character when the medical officer's portion is estimated at a little over one shilling per diem.

HONEST ADULTERATION.—Henceforth no one need buy butter, inasmuch as Messrs. Dordron and Co., of 25 Finsbury Place, London, advertise to supply "butterine, a most delicate and nutritious article of food, superior to Dorset and Dutch butter." These public benefactors go on to state that "its use will effect an immense saving; butterine, being composed of suet and milk, is half the price of butter." At least this announcement contains an honest confession. If the public like "bread and suet" at half the price of bread and butter, Messrs. Dordron and Co. have conceived the method of preparing it to perfection, and so disguising the taste that only an expert could tell it from fresh

butter prepared from the milk of the cow. Here, then, is a rare chance for buttermen: Buy "butterine" at half price, rub it against a churn, and sell it as superior fresh at fifty per cent. profit; Messrs. Dordron and Co. have kindly paved the way.

## VACANCIES.

Mohill Union, Ryann Dispensary District. Medical Officer. Salary £120 per annum, exclusive of fees. (See Advt.)

St. Marylebone, London. Medical Officer for the Christ Church District. Salary, £230 per annum. Application to be made to the Clerk, at the Union Office.

Parish of Lambeth, Surrey. Resident Medical Officer and Dispenser for the parish Infirmary. Salary, £100, with board, &c. Candidates should address the Clerk to the Guardians, at the Union Offices.

Ramsgate Dispensary. Resident Medical Officer. Salary, £100, with furnished apartments. Applications to the Secretary.

Tunbridge Wells Dispensary. House Surgeon. Salary, £100 per annum, with board and lodgings. Applications to the Secretary.

University College, London. Professorship of Comparative Anatomy and Zoology. Full information of Mr. Robson, at the College.

North Staffs Infirmary, Harts-hill. Junior Resident Medical Officer, wife to act as superintendent of nurses. Commencing salary at £250. Board, &c., provided. Applications to the Secretary.

Bridgeforth Infirmary. House Surgeon. Salary, £100. Testimonials to be forwarded to the Hon. Sec.

King's College, London. Professorship of Physiology. For particulars apply to Mr. Cunningham, the Secretary.

Metropolitan Free Hospital. Assistant Physician. Honorary.

Dumfries Infirmary. House Surgeon. Salary, £30 per annum, with board and residence. Apply to the Treasurer.

Jersey General Dispensary. Resident Visiting and Dispensing Medical Officer. Salary, £120 per annum. Apply to the Rev. P. Le Feuvre, Jersey.

Carmarthen Infirmary. Resident Medical Officer. Salary, £100 per annum, with board and lodgings. Address Mr. Howells, King Street, Carmarthen.

## APPOINTMENTS.

ADDERLEY, J., M.D., Resident Medical Officer and Apothecary to the Cork Fever Hospital.

ANDERSON, J. W., M.D., Assistant Physician to the Royal Infirmary Dispensary, Glasgow.

ATKINS, G. P., L.R.C.P. Ed., L.R.C.S.E., Resident Medical Officer to the Fever Hospital, Cork Street, Dublin.

BEATSON, G. T., M.B., C.M., L.R.C.S. Ed., Senior House Surgeon to the Newcastle-on-Tyne Infirmary.

BELLIS, E., L.K.Q.C.P.I., L.R.C.S.I., Medical Officer of Health for the District of Much-Woolton, near Liverpool.

BEVERIDGE, R., M.B., L.R.C.S. Ed., an Examiner for Graduation in Medicine at the University of Aberdeen.

CALDWELL, S., L.R.C.S.I., L.K.Q.C.P.I., Medical Officer, &c., for the Virginia Dispensary District of the Oldcastle Union, co. Meath.

CAMERON, J., M.B., C.M., Medical Superintendent to the Argyll and Bute District Lunatic Asylum, Lochgilphead.

DEAN, T., M.D., M.R.C.S.E., Medical Officer of Health for the Burnley Rural Sanitary District.

GAMGEE, A., M.D., F.R.C.P. Ed., Assistant Physician to the Manchester General Hospital and Dispensary for Sick Children.

GILL, H. C., M.R.C.S.E., Medical Superintendent of the York Lunatic Asylum, Bootham, York.

GREENSILL, E. S., M.R.C.S.E., House Surgeon to the Royal United Hospital, Bath.

HAMILTON, F. G., M.R.C.S.E., a House Surgeon to the Queen's Hospital, Birmingham.

HOURIGAN, Dr. W. P., Medical Attendant to the Royal Irish Constabulary, Tullaroan, co. Kilkenny.

MACKENZIE, L., L.R.C.P. L., M.R.C.S.E., Resident Medical Officer to the London Hospital.

MAOER, R. J., L.R.C.S. Ed., Medical Officer to the Workhouse and Fever Hospital of the Kilkenny Union, and a Medical Officer, &c., for the Kilkenny Dispensary District.

MURPHY, J., M.B., Junior House Surgeon to the Sunderland Infirmary.

NORMAN, C., L.K.Q.C.P.I., L.R.C.S.I., an Assistant Medical Officer to the East Dispensary, Liverpool.

O'FARRELL, N. S., M.B., L.R.C.S.I., Medical Officer, &c., for the Woodstown Dispensary District of the Waterford Union.

OGSTON, A., M.D., an Examiner for Graduation in Medicine at the University of Aberdeen.

SMITH-SHAND, J. W. F., M.D., L.R.C.S. Ed., an Examiner for Graduation in Medicine at the University of Aberdeen.

## Marriages.

SALTER-HAYCOCK.—On the 7th inst., at St. Stephen's, Paddington, James Salter, M.B., F.R.S., to Fanny, youngest daughter of the late Edward Haycock, Esq., of The Priory, Shrewsbury.

MORISON-HOGG.—On the 7th inst., at St. George's, Hanover Square, John Morison, M.D., of St. Helier's, Jersey, to Maud, eldest daughter of Robert Hogg, LL.D., of St. George's Road, S.W.

## Deaths.

BLACKSTONE.—On the 1st October, J. Blackstone, M.R.C.S.E., of Gloucester Road, Regent's Park, London, aged 78.

KIRKWOOD.—On the 7th October, at Ayr Villa, Malda Vale, London, after a long illness, John Templeton Kirkwood, M.D., M.R.C.S., in the 63rd year of his age.

THOMPSON.—On the 21st September, Robt. Thompson, M.R.C.S.E., of Theatre Street, Norwich, aged 63.



# The Medical Press & Circular.

"SALUS POPULI SUPREMA LEX."

WEDNESDAY, OCTOBER 21, 1874.

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## Original Communications.

### ON THE SCIENTIFIC AND EMPIRICAL INVESTIGATION OF EPILEPSIES. (a)

By J. HUGHLINGS JACKSON, M.D., F.R.C.P.,  
Physician to the Hospital for the Epileptic and Paralysed, and to the London Hospital.

#### LECTURE I.

#### PART II.—SUMMARY.

I SHALL be obliged, in carrying out the Method above stated, to consider at length many subjects usually considered apart from epilepsy. I will here give a sketch of some of the more important of them. I do so chiefly because what has to come in the early chapters will involve anticipations of what has to be proved in later ones.

Before I go further I have certain obligations to acknowledge. I am under very heavy obligations to Herbert Spencer. I shall acknowledge these obligations in detail in later chapters. It will, however, be apparent in almost every part of the latter half of the present chapter that I am greatly indebted to him. Let me at once give a quotation from his "Psychology" with regard to Evolution of nervous centres, a subject on which I have much to say: "In the functions of the successively higher vertebrate centres, reaching their climax in the human being, we see well exemplified the law of development of functions in general."—"First Principles," p. ii., § 142.) "This progress from co-ordinations that are small and simple to those that are larger and compound, and to those that are still larger and doubly compound, is one of the best instances of that progressive integration of motions simultaneously becoming more heterogeneous and more definite which characterises Evolution under all its forms."—"Principles of Psychology," vol. i., p. 67.)

I must mention very prominently Laycock's doctrine of the Reflex Function of the Brain. The following is a

(a) This and subsequent chapters to be published in this journal are the introductory chapters of a forthcoming work on Epilepsy.

quotation from an article written by him thirty years ago. The first sentence of the quotation refers to a still earlier exposition of the doctrine in his treatise on the "Nervous Diseases of Women." This book was published in 1840, and contains a chapter (p. 105) headed "The Instinctive Actions in Relation to Consciousness: the Brain subject to the Laws of Reflex Action."

"Four years have elapsed since I published my opinion, supported by such arguments as I could then state, that the brain, although the organ of consciousness, is subject to the laws of reflex action, and that, in this respect, it does not differ from the other ganglia of the nervous system. I was led to this opinion by the general principle that the ganglia within the cranium, being a continuation of the spinal cord, must necessarily be regulated, as to their reaction on external agencies, by laws identical with those governing the spinal ganglia, and their analogues in the lower animals. And I was confirmed in this opinion by finding, after the investigation and collocation of known facts, that observations and arguments like those satisfactorily adduced in proof of the existence of the reflex function of the spinal ganglia, may be brought forward in proof that the cerebral ganglia have similar endowments. In the present paper I propose to give these proofs connectedly."—(*British and Foreign Medical Review*, vol. xix., January, 1845, p. 298.)

I have italicised some parts of this quotation which state clearly a principle I shall re-state from a different standpoint when speaking of the relations of Psychology to the Anatomy and Physiology of the Nervous System.

It is scarcely necessary to point out that, like all other writers on Epilepsy, I am in debt to Brown-Séquard.

To Dr. Ferrier I am very specially indebted. I shall have many opportunities of acknowledging my very great obligations to him. His well-known researches, and those of Hitzig to which he refers, are of inestimable value for clinical medicine, as well as for physiology.

To Professor Bain I owe much. From him I derived the notion that the anatomical substrata of Words are motor (articulatory) processes. (This, I must mention, is a much more limited view than he takes.) This hypothesis has been of very great importance to me, not only specially because it gives the best anatomico-physiological

explanation of the phenomena of Aphasia when all varieties of this affection are taken into consideration, but because it helped me very much in endeavouring to show that the "organ of mind" contains processes representing movements, and that, therefore, there was nothing unreasonable in supposing that excessive discharge of convulsions should produce that clotted mass of movements which we call spasm. (a)

Not less are my obligations to Mr. Lewes. I shall have to refer to his writings in many parts of this book.

I now proceed to brief anticipatory statements of some of the topics to be discussed at length in later chapters.

The method of studying cases as departures from health obliges me to compare and contrast the effects of "destroying lesions" with those of "discharging lesions." I have incidentally illustrated this by the contrast and the comparison of hemiplegia and hemispasm for another purpose. I will now give another example. When I speak of epileptiform aphasia I must speak of aphasia caused by a permanent gross lesion. For, after, as well as during, certain epileptiform seizures, we find temporary defects of speech like those more permanent ones which so often result from embolism or thrombosis, or from clot. Sometimes there is hemiplegia with it—epileptic hemiplegia of Dr. Todd. It is unreasonable to study a suddenly occurring and transitory symptom without comparing it with what we have learned of the same symptom when permanent, which latter we can study with any degree of minuteness, and at our leisure.

Another matter closely connected with the subject just spoken of is that it is absolutely necessary to consider convulsion and other paroxysmal symptoms as "experiments (b) made by disease" which reveal the localisation of processes for different groupings of movements and impressions in different parts of the cerebral hemispheres. This is, so far as I know, quite unfamiliar, and, therefore, has an air of unreality. It requires a vast amount of time to observe cases of convulsion minutely enough for this purpose. Nothing in our clinical work demands so much patience. The results of the experiments of Fritsch, Hitzig, and Ferrier are infinitely more precise than those of the "experiments of disease," but the latter are nevertheless, I assert again, absolutely necessary, as they are the only experiments on the brain which can be observed for the localisation of movements in the case of Man. For this purpose, since "destroying lesions" of much of the cerebral hemisphere produce no obvious or striking symptoms, we are obliged to study the effects of "discharging lesions" in these parts.

Epilepsy, like Aphasia, has been studied with a Psychological habit of mind, and, as I think this way of studying such a disease is unfruitful, I have to point out in detail the vast difference there is betwixt Psychology and the Anatomy and Physiology of the Nervous System. The confusion of the two, as I believe, is really one of the great hindrances to the acceptance of the view that the convulsions (parts of the "organ of mind") represent movements. The notion seems to be that the "organ of mind" being for "ideation," cannot contain processes representing movements.

Admitting, as the whole educated world now does, that all mental states have parallel physical states, I think our direct concern as physiologists and physicians is with the latter only. Hence, I should not use such expressions as that hemiplegia is "owing to loss of volition," or that a person did not speak because he had lost the "memory of words." These are really little better than Verbal propositions. I willingly plead guilty to having

(a) I ought to mention that Dr. Bastian, a physician whose opinion on any such subject deserves the greatest respect, has vigorously and very ably combated Bain's opinion, and, at the same time, my explanation of the phenomena of Aphasia founded on it.—(*Med. Chir. Rev.*, January, 1869.)

(b) See "On Localisation of Movements in the Brain," *Lancet*, January 13, 1873, *et. seq.* I shall shortly republish this paper in a separate form, and also a valuable paper by Dr. Gowers, "Cases of Convulsion from Organic Brain Disease"—(*Brit. Med. Jour.*, September 26, 1874.)

formerly used similar phrases open to the same criticism. I should also in an investigation like this, when possible, avoid such expressions as "centres of ideation," "emotional centres," &c., not because I dispute their correctness, but because our concern, as physicians, is with the anatomical substrata of ideas and emotions. Besides, the expressions objected to refer only to the material basis of mind. To give a material explanation of mental states, admitting its correctness so far as it goes, is not to give an anatomical explanation. Again, to say that the substrata of mind are made up of arrangements of cells and fibres or centres of cells and fibres, is to make a statement which is not disputed by educated people now-a-days, but it is only a statement in morphology; or rather, such expressions as "centres of ideation" are mixtures of Morphological and Psychological terms. They contain nothing anatomical or physiological. The anatomical substrata of ideas (of the more important, evidently) are sensori-motor processes. The whole of the central nervous system, cerebral hemisphere, spinal cord, &c., is made up of processes of differing degrees of complexity representing impressions and movements. There are, so far as I can judge, no other "materials" of which the "organ of mind" can be made up. As the quotation from Spence implies, the very highest of all nervous centres are but complex rearrangements of lower centres, and these of still lower centres unto the lowest, which last directly represent impression and movements.

Perhaps one criticism on the above will be that I am confounding "mental" states with "physical states." A reader may perhaps suppose that I imagine processes for impressions and movements to become in the highest centres so fine that they "fine away" into mental states. I do not. To show what I really think, let me quote the words of Herbert Spencer:—

"Though accumulated observations and experiments have led us by a very indirect series of inferences to the belief that mind and nervous action are the subjective and objective phases of the same thing, we remain utterly incapable of seeing and even of imagining, how the two are related."—(Spencer, "Prin. of Psy.," vol. i, p. 140.) Elsewhere Mr. Spencer writes:—

"See, then, our predicament. We can think of Matter only in terms of Mind. We can think of Mind only in terms of Matter. When we have pushed our explorations of the first to the uttermost limit, we are referred to the second for a final answer; and when we have got the final answer of the second, we are referred back to the first for an interpretation of it. We find the value of  $x$  in terms of  $y$ ; then we find the value of  $y$  in terms of  $x$ ; and so on we may continue for ever without coming nearer to a solution."—("Prin. of Psy.," § 272.)

To show my feeling on the matter, I will remark that I consider the confusion I have spoken of is really fostered by such classifications as those of aphasia which put together "ataxy of articulation" (physiological phraseology) and "loss of memory for words" (psychological phraseology) and imply nothing of the nature of the anatomical substrata of words.

How from or during the energising of sensori-motor processes or of the highest of them, there arise mental states, is not our concern, not our direct concern at any rate, in such investigations as the present. Yet it is of no importance, for this investigation, what view of the connection of mind and matter we take. If any reader supposes mind to be a function of matter (thought, let us say a secretion of brain), I should simply say to him that one does not concern oneself with that "function" in an anatomical and physiological inquiry, but with another function—viz., the energising of cells and fibres representing peripheral impressions and adjusted movements.

I make these last remarks because I think some people have the notion that to take a materialistic view is to take a "practical" view. But, as above stated, a merely material view is not an anatomical one. In the sake of argument that it is perfectly correct, it goes, it has to go a stage further.

shall try to show later that under this supposed "practical" guise work has been done on the old-fashioned system. We judge people not by the names they use, but by their method. The old-fashioned method spoke of an immaterial mind. The very same method in a new dress still speaks of a brain as if it were a "solid mind" governing and acting on the body, and not as if it were simply the most developed part of the nervous system "regulated by laws identical with those governing the spinal ganglia" (*Laycock* quoted).

The first half of the compound word "sensori-motor" is not free from objection. The word "sensation" is often confusedly applied both to a physical state and to the mental state which occurs along with it (see *Mill's Logic*, vol. ii., p. 43); for example, it is used for colour (mental state) and for the molecular disturbances in the "optic nervous system" which occur therein whilst that mental state exists. It is used for pain, and for the associated disturbances in afferent nerves and centres. I think this confused use of the word leads to many misunderstandings. It makes it fallaciously easy to understand how it is that we have mental states from (or during) the energising of Afferent nerves and centres, whilst no thought is given to the possibility that mental states arise during energising of Efferent nerves and their centres. To give an example, it makes it seem easy to understand that energising of nervous processes representing retinal impressions should give us ideas of objects, whilst it leads to difficulty in accepting the opinion that energising of processes representing articulatory movements should give us ideas of words. The real fact is, that in neither case can we tell why during energising of cells and fibres we have ideas. The difficulty is just the same in the two cases, for mental states arise from or during molecular movements in nerve cells and fibres, and they arise, I submit, during molecular movements in nerve cells and fibres representing movements as well as during molecular movements in those representing impressions. "Sensations" in the sense of "mental states," arise, I submit, during energising of motor as well as of "sensory" nerve processes—with the "out-going" as well as with the "in-going" current. I should not dwell on this were it not that the distinction insisted on is of very direct importance. For example, I have to show that vertigo is essentially a motor symptom, and that the "sensation" of vertigo is no proof that vertigo is fundamentally an affair of "sensory" (afferent) nerves or centres.

Although I have, for convenience, spoken separately of afferent and efferent processes, and, if I may so speak of afferent and efferent centres, both are concerned together on the anatomical and physiological side of "ideation." The former are evidently concerned in acquiring ideas of the dynamical or secondary qualities of objects, the latter in acquiring ideas of the statical or primary. For example, in actually seeing objects, there is a strong discharge from periphery (retina) to centre, and from centre to periphery (ocular muscles). (a) There is not sensory action only, nor motory action only; there is sensori-motor action. There is a similar process in having the ideas again. The faint and central discharges which occur in thinking of objects (recollecting, being conscious of, having an idea of, &c.) will be of nervous processes which are representatives of both (b) impressions and movements. For, in thinking of objects,

(a) "The qualities of things admitted on all hands to be qualities of the external or object world—called the Primary Qualities—Resistance and Extension—are modes of our muscular energies; the qualities that do not of themselves suggest externality or objectivity, the Secondary qualities as Heat, Colour, &c., are our passive sensibilities, and do not contain muscular energy."—(Note by Bain, p. 5, vol. i., of James Mill's "Analysis of the Human Mind.")

The ocular movements spoken of in the text are, strictly speaking, symbols of the tactual and locomotor movements that give us our ideas of the primary qualities.

(b) This statement embodies, I believe, Spencer's theory of the physical process which occurs during recollection. (See "Prin. Psych.," vol. i., p. 124, and p. 456.)

there is not only a Representation of surface (colour), but also of size and figure. In fact, the discharge will be of the very same series of nervous processes in Presentation and Representation; in the latter the discharge is slight, and is limited to the centre, whilst in the former it is strong, and reaches from periphery to centre, and from centre to periphery. We shall see that in accordance with these views there occurs from the epileptic, which is not only a strong but an excessive discharge of "centres for ideas," brutal development of the two elements—crude impressions (clouds of colour appearing to the patient, for example) and that clotted mass of movements we call spasm.

As will be inferred, I adopt Bain's views on the "out-going" current. The facts of cases of vertigo, many ocular symptoms, but most strikingly the production of "ideal" movements by faradising stumps have led me to accept his opinion. I have in a former paper (in the 3rd vol. of the "West Riding Asylum Reports," (a) p. 191) spoken of the proof which such cases give that central excitations of processes representing movement suffice in internal speech and other mental operations. Remarks like these are foreign to the subject of epilepsy as that disease is usually studied, but not foreign to my view of it. For, as above stated, I believe epileptic paroxysms result from discharges of parts of the organ of mind, from discharge of parts containing anatomical substrata of ideas, into which substrata the element movement necessarily enters.

In order to obtain a realistic view of the symptom, Loss of Consciousness, I have to speak in detail of the Evolution of the higher nervous centres out of the lower. All nervous centres represent or re-represent impressions and movements. The highest centres are those which form the anatomical substrata of consciousness, and they differ from the lower centres in compound degree only. They represent over again, but in more numerous combinations, in greater complexity, speciality, and multiplicity of associations, the very same impressions and movements which the lower, and through them the lowest, centres represent. They represent the whole Organism. They represent not only the impressions of the five senses, and the movements ordinarily so-called, but also organic or systemic sensations (Bain and Lewes) and movements of the heart, arteries, intestines, &c. "The seat of consciousness is that nervous centre to which, mediately or immediately, the most heterogeneous impressions are brought." (b) The statement is not of the most numerous impressions, but most heterogeneous. To the seat or seats of consciousness, impressions of all orders are brought, and from it issue motor impulses of all orders.

Let us see how the paroxysms of certain cases of epilepsy corroborate this view—that the highest of the highest nervous centres re-represent the whole of the body. The cases I mean are those in which the symptom loss of consciousness is the first event in the seizure (cases without a "warning"). Now, these are the cases in which the discharge begins in the very highest centres (in the substrata of consciousness). They are the cases which commonly go by the name of true or idiopathic epilepsy. To say of a paroxysm of epilepsy that it begins with loss of consciousness is a symptomatic expression; to say that the discharge begins in the very highest processes is the anatomico-physiological expression corresponding to it.

In those cases of epilepsy in which loss of consciousness is the first event in the paroxysm, the convulsion is universal, the two sides of the body are more nearly equally and more nearly contemporaneously convulsed; it is in

(a) I tried to show two things—(1) that energising of processes representing movements is a factor in the physical side of ideation (as, for example, in ideas of size and figure), and (2) that nascent excitation (excitation limited to the centre), or otherwise expressed, a "motor impulse," suffices in memory, &c. For in the cases spoken of, notably in faradising stumps, we have ideas from excitation of motor centres when the current developed is physically debarred from reaching the muscles.—("On Faradising Stumps." See the masterly work of Weir Mitchell on "Injuries of Nerves.")

(b) Spencer, "Psychology," vol. i., p. 105.

these cases that there is, at the very first, much pallor of the face. I think these cases agree with the conclusion that the sensori-motor processes which form the anatomical substrata of consciousness are evolved out of, re-represent, and so to speak, potentially contain, all other (lower) series of sensori-motor processes. (a) For a discharge beginning in these highest processes affects the whole body quickly, and affects the whole very nearly at the same time.

This realistic method of treating the symptom, "loss of consciousness," is a matter of the utmost importance. We can, on this method, study the "mental" as well as the "physical" symptoms of epilepsy anatomically and physiologically, and free from that psychological bias which makes the symptom loss, or trouble of consciousness, an isolated phenomenon, with no relations to other nervous symptoms.

Here, reverting to a former topic, I may again draw attention to the importance of studying epilepsy by the aid of far simpler cases of nervous disease. I could not at an earlier stage give this illustration. From the facts of cases of cerebral hæmorrhage, cerebral tumour, &c., I have long since drawn the conclusion that the convulsions of the cerebral hemisphere represent not only ordinary movements and impressions, but the whole of the "vital" processes. In a paper in the *Medical Mirror*, Oct., 1869, I write, except for a few verbal alterations, as follows: "We have now, then, to add to the constitution of the Units of the Cerebrum nerve fibres to the heart, vessels, and viscera, or rather probably to regions of the sympathetic system from which these parts are supplied. The inference we have now arrived at is that the units of the cerebral hemisphere (in the region of the corpus striatum, at least) represent potentially the whole processes of the body. If this be so we can understand how it happens that in cases of epilepsy (beginning by loss of consciousness, i.e., beginning in the highest nervous processes), besides obvious convulsion, we have premonitory shivering, pallor of face, and increased flow of saliva, and in some cases vomiting. Thus, too, we see how it is that emotional manifestations accompany intellectual phenomena. Emotional phenomena are wide and yet temporary bodily states, and we have seen that the heart, arteries, and viscera, as well as the large muscles of the body, are represented in the units of the cerebrum."

I must consider at some length another general principle—the principle of Compensation in nervous organs. This clears the superficial paradox stated in a former paragraph—viz., that destruction of parts in a certain region of the cerebrum produces no obvious, or striking symptoms, notwithstanding that strong discharge of those parts produces exceeding violence of movement (convulsion).

The movements represented in the destroyed part are represented, although in somewhat different order, in neighbouring parts (the compensation is never absolute). Taken with the principle of evolution, the principle of compensation accounts, I consider, for the fact that fits, declared to be like the epileptic fits of man (and which I believe result from discharges of parts of the cerebrum), can result in lower animals from discharge of the pons varolii and medulla oblongata—can result, that is, when the cerebrum is taken away. For I shall try to show that, as I have already in principle said, when speaking of loss of consciousness, the cerebral hemisphere re-represents the very same external parts which the pons varolii, and all other lower centres represent, but more specially, in greater complexity, &c. In man re-representation or evolution is carried many stages further than in the brute: Man has the large cerebral hemisphere; the brute the large pons and medulla.

There is also to be considered the principle of Dissolution. As in evolution the development is from the general to the special, so in the opposite process of dissolution the

undevelopment is from the special to the general. Using psychological terms, and taking particular cases, we may illustrate by saying that the Insane Patient is one who is reduced to a more automatic condition of Mind, the Aphasie to a more automatic condition of Language, and the Hemiplegic Man to a more automatic condition of Voluntary Movement. If the reader bears in mind what was implicitly stated of Evolution when the symptom Loss of Consciousness was considered (that there is a continuous transition from the lowest centres concerned in the most general or most automatic physical actions, through intermediate centres up to the highest centres concerned in the most special or most voluntary actions, that is to the anatomical substrata of consciousness) he will see that the following statements on the conditions of the Insane, the Aphasie and the Hemiplegic man, are, although from a different standpoint, to the very same effect as the statements already made—that they are "reduced," &c. The insane man has lost the use of, or of some of, the most special of all nervous processes whatsoever; he has, indeed, defect of consciousness. The aphasic man has lost the most special processes of the language series; the hemiplegic man the most special processes for movement.

This principle will have to be expounded at length, because it enables us to understand the duplex condition in acute attacks of insanity occurring with Epilepsy (epileptic mania) and also in Insanity ordinarily so-called. I will speak briefly on it now. First let us recapitulate. The principle of evolution is that the higher centres are evolved out of the lower. The highest centres (the anatomical substrata of consciousness) are, as it were, the climax of the evolution, and re-represent all lower centres. In other words they represent the whole Organism (Subject). It is only another mode of stating the same thing to say that they are the processes by which the organism as a whole, is adjusted to its Environment (Object). There are after certain epileptic attacks Reductions to more general adjustments, corresponding to lower ranges of evolution—we may say there are Lowerings of Adjustment, owing to different depths of dissolution beginning in the highest centres.

This last way of stating the process of Dissolution is most convenient for our purpose. I will restate it with details. Considering the very highest of all nervous processes as those concerned in the most special adjustments of the organism as a whole to its environment (see quotation from Spencer in next foot-note), and considering that these processes are evolved out of lower series of processes which represent more general adjustments, and these again out of still lower series representing adjustments still more general, and so on to the lowest series of nervous processes in the body—we can, I think, by taking note of the experiments of disease, show stages of lowering of adjustment as consequences of different depths of Dissolution of the higher centres. Such lowering of adjustment is indeed but another aspect of Dissolution, and is equivalent to saying that the organism is reduced to a more automatic condition. On this way of putting it, it matters not whether consciousness is displayed or not during the play of the more general adjustments. The question is—"How is the Organism adjusted to its Environment?" Let us now see how these principles apply to epileptic mania and to other conditions following severe epileptic discharges.

As before said, an epileptic maniac is one who has been reduced to a more automatic condition of mind. He is so reduced by loss of use of (exhaustion of) the highest centres, consequent on a strong nervous discharge beginning in them. But we shall see that there are, after different degrees of epileptic discharges beginning in the highest centres, all degrees of dissolution, or otherwise put all degrees of lowering of adjustment (a) of the organism to

(a) It is most insignificant, whatever the explanation may be, that there are slight cases (*petit mal*) in which, with merely transient loss of consciousness, there is deep pallor of the face, and a slight wave of universal movement. In such cases there is often a warning by a feeling mostly very disagreeable but not ordinary pain at the epigastrium. This feeling is, I believe, a development of Systemic sensations.

(a) "For since all modes of consciousness can be nothing else than incidents of the correspondence between the organism and its environment, they must all be different sides of, or different phases of, the co-ordinated groups of changes whereby internal relations are adjusted to external relations."—(Spencer's "Psychology," No 25, p. 496.)

its environment. Starting from a condition which is subjectively only slight confusion of thought, we can trace all gradations to deepest coma, in which last there remains only action, and that imperfect, of some of the most automatic of all processes, respiration and circulation. There is indeed sometimes a loss of all adjustment, which is death.

The condition of things in Insanity differs only in degree from that in epileptic mania. The ordinary insane patient has *defect* of consciousness, analogous to the *loss* of consciousness of the epileptic maniac; the "symptoms" of insanity are due to quasi-healthy actions of more automatic processes, as are also those of the epileptic maniac.

Two things which should, I think, be considered separately, are often considered together under Heredity. I have, then, to speak in two places of heredity. I have to show under Pathology that there is hereditary transmission (1) of a tendency to diseases of Tissues; and in another place I have to urge that there is (2) transmission of imperfect Organs. The "facts" of these hereditary transmissions are not, I consider, evidence that there is inherited a tendency to particular *diseases* or *symptoms*, such as chorea, epilepsy, insanity, &c. Let me show one kind of confusion. (I here speak of the "genuine epilepsy" of authorities.) If in an epileptic patient's family hemiplegia had been common, it would be no evidence whatever that a tendency to epilepsy was inherited (as a *nervous* disease I mean, of course), for the very simple reason that hemiplegia itself is not, strictly speaking, a nervous symptom. In the vast majority of cases it is an *arterial* affair. Hemiplegia mostly occurs because an artery breaks (hæmorrhage), or because an artery is blocked up (softening from thrombosis). Yet it is common to find such "facts" brought forward as proof of inheritance of *nervous* diseases, or of a tendency to them.

The Neuroses in particular are mostly supposed to be hereditary directly, or by substitution. For the present I draw attention to the significant fact that *the pathology of these diseases, which are supposed to be pre-eminently hereditary, is, according to most physicians, unknown.* Under pathology I shall, I hope, show that in nearly all cases of "nervous" diseases or symptoms of which the pathology is known, morbid anatomy declares that the changes begin in non-nervous tissues. I confess that my impression is that this will be found to be the case with epilepsy and the allied neuroses. Indeed, I think there is already, to say the least, a strong case for the inference that one of them, chorea, is very often an arterial affair; the discharging nerve tissue in this disease I believe becomes unstable from hyperæmia, a result of plugging of arteries.

Heredity with regard to the transmission of imperfect Organs has to be considered in order to help to make clearer the nature of the symptoms of Epileptic Mania, and other forms of insanity. A man does not, according to my hypothesis, inherit insanity of any kind. The man whose insanity is said to have been transmitted is, I think a person who inherits an imperfect nervous system, not imperfect in its tissues, but in relative development of its higher and lower centres. First, the higher, and metaphorically speaking, *controlling centres* are in him imperfectly developed, that is to say, psychologically speaking, the latest faculties acquired by the race are in him ill-developed. Secondly, the lower centres and corresponding lower faculties are in comparison over-developed. (a)

Such a man is more liable than another man to become insane, but not because he more than another man has any

(a) I do not mean by "higher" faculties simply mind generally, or by "lower" the "passions and instincts." There are all gradations from instinctive actions, or even from the lowest and simplest reflex actions to the highest processes concerned in reasoning (see Spencer *passim*). Nor is the expression "emotional" limited, as it often is, to the common and superficial emotions. The highest faculties (those last acquired by the race) are the power of Abstract Reasoning (Intellectual) and the sentiment of Justice (Emotional)—(Spencer). In cases of commencing disease of the brain, loss of power of connected thought on difficult and complex matters, with peevishness and selfishness, are owing to defects in these two highest faculties. These defects, when in slight degrees, are popularly called "alterations" of the disposition.

tendency to *disease of the tissues of the brain* (connective, arterial, or nervous), but because either any actual disease of the tissues of his brain, or general severe ill-health, nay, even misery, &c., would very easily impair, or put entirely out of use, the highest (controlling) nerve processes. On the principle of dissolution the highest of his nervous processes are those which will fail first, from causes affecting the whole brain. He is more easily than another man rendered insane by epileptic fits, because he can bear little damage of any sort to the highest parts of his nervous system. He is sometimes a man who would be easily excited ("maddened," his friends may say) by drink. (See Griesinger, "Syd. Soc. Trans.")

I do not believe that there is an insane neurosis interchangeable with epilepsy, chorea, or neuralgia. Insanity and such diseases as epilepsy and chorea are not fairly comparable. The *active* symptoms of insanity are not directly due to the *disease* of the brain or of any other part of the nervous system, as the symptoms chorea, convulsion, and spasm, are. The "symptoms" of insanity are due to action of lower centres of the brain, which centres are healthy except for exaggerated action, consequent on loss or defect of the highest and controlling centres, the parts really *diseased*. The insane man is reduced to a more automatic condition of mind by loss of or defect in these highest and controlling centres, or, as we have otherwise expressed it, his adjustment is lowered. In the acute insanity of epileptic mania the "disease" is that the highest centres are temporarily and suddenly paralysed by a strong nervous discharge; the mania, like the insanity, is owing to uncontrolled action of lower and more automatic (a) centres, which centres are not diseased.

I do not mean to imply that I can prove all these points satisfactorily. In particular, at present I have no satisfactory answer to the objection which is sure to be brought, viz., that epilepsy artificially induced in guinea-pigs (Brown-Séquard) is hereditary.

It will be granted that it is very difficult to show that such different lines of thought as those mentioned above harmonise. Evidently in writing the earlier chapters of this book I must anticipate conclusions to be reached in later ones. I have endeavoured to render my method less difficult to the reader by a free use of foot-notes.

Such a way of handling a subject is, however, not favourable for clearness of exposition. It is far from easy to make plain the relations of things, some of which have been almost universally considered separately from epilepsy. I have therefore for several years delayed the execution of this work; but the recent brilliant researches

(a) As will be inferred, I accept Laycock's doctrine on the Reflex Function of the Brain (*vide supra*). I accept also a principle formulated by Dr. Anstie, some years ago, that increased action of lower centres is due to loss of control by the higher, or, as I suppose we may say now-a-days, to lack of inhibition (see his *Stimulants and Narcotics passim*). The great differences betwixt epileptic mania and insanity ordinarily so-called are, I think, due to differences in the suddenness with which the highest processes are put wholly or partially *hors de combat*.

The following extract from the *Medical Times and Gazette*, July 9, 1873, referring to Heredity, may help to make what I have said in the text clearer:—

"The facts of 'transmission of disease' are not denied, but a very different interpretation of them is suggested. There is now attending the out-patient room a boy who is manifestly the subject of congenital syphilis, and whose mind has failed several months. One sign of mental failure has been a magpie-like hiding of tools. It would be, Dr. Hughlings Jackson thinks, unmethodical to call this lad's mental condition 'Syphilitic Insanity'—obviously grotesque if, going into details, we should say that hiding his fellow-workmen's tools was a syphilitic symptom. The boy's father died insane in Colney Hatch. This boy has received as his father's share in his development not only a syphilitic taint, but a nervous system, the higher division of which is easily 'reduced.' It so happens that the reducing agent has been in all probability syphilitic disease. The inheritance was not of insanity, but of a brain ready to fall on comparatively slight provocation of any kind—one probably easily upset by drink or excitement (easily excited, rather). No doubt anything which involved even slight damage to the cerebrum would in such a brain have 'caused' insanity, from so-called 'alteration' of disposition up to insanity as the term is commonly used."



of Ferrier encourage me in the belief that a connected account of the work I have done on epilepsies may be acceptable. For he mentions that he undertook his experiments partly with the object of putting to "experimental proof" the views I have put forward on epilepsy. (a)

The value of Ferrier's researches as contributions to the anatomy and physiology of the nervous system could scarcely be overrated. But very naturally to me, a physician, their greatest value seems to be for the help they afford in the methodical investigation of that most inhuman of all diseases, epilepsy. It is a matter of great satisfaction to me to find that my views have passed well through the ordeal. Ferrier, speaking of his experiments, writes:—

"The pathology of epileptiform convulsions, chorea, and epileptic hemiplegia, receive much light from the foregoing experiments. I regard them as an experimental confirmation of the views expressed by Dr. Hughlings Jackson. They are, as it were, an artificial reproduction of the clinical experiments performed by disease, and the conclusions which Dr. Jackson has arrived at from his observations of disease are in all essential particulars confirmed by the above experiments." (*Op. cit.*, p. 85.)

In spite of the encouragement I have received from these researches, I feel that it requires more skill than I possess to make my subject clear to those who have long worked at epilepsy from a totally different point of view.

## A Course of Lectures

ON THE

### NATURE AND TREATMENT OF DEFORMITIES OF THE HUMAN BODY,

DELIVERED IN THE MEATH HOSPITAL, DUBLIN, BY  
LAMBERT H. ORMSBY,

Surgeon to the Hospital, and Demonstrator in the School of Surgery,  
Royal College of Surgeons in Ireland.

#### LECTURE VIII.

### DEFORMITIES AND DISTORTIONS OF THE NECK AND FACE.

*Introduction—Anterior Curvature in Cervical Region: Causes—Treatment—Wry Neck, or Torticollis: Causes—Treatment—Diseases of Cervical Vertebrae—Distortions arising from the Contraction of the Adjacent Tissues after severe Burns and Scalds: Nature and Treatment; different Operative Methods—Deformities arising from Glandular Enlargements—Deformities of the Head and Face: Causes and Treatment—Conclusion.*

DEFORMITIES in the neck and face are always of the greatest moment to the surgeon, as any deviation from the natural state is rendered so apparent to the eye of observation that every imaginable plan is adopted at times by the unhappy sufferer to cover and hide what is remarkable in their personal appearance.

I will divide, for convenience, such deformities under six heads—

- 1st. Anterior Curvature.
- 2nd. Wry Neck, or Torticollis
- 3rd. Disease of Cervical Vertebrae.
- 4th. Distortions arising from the Cicatrices of Severe Burns.
- 5th. Deformities arising from Tumours and Glandular Enlargements in the Neck.
- 6th. Deformities of the Head and Face.

#### 1. ANTERIOR CURVATURE.

*Anterior Curvature*, or, in other words, "round shoulders," is occasionally to be met with in those young people of both sexes who acquire such a position by weak and delicate constitutional tendencies, combined with a habit of keeping the head and body in one continued

attitude—for example, the over-studious, continually ing over books. In such cases the muscles in the posterior aspect of the neck are weak and flaccid, and appear to be incapable of supporting the head and keeping it in equilibrium, which by the debility becomes bent forwards, and thus the shoulders assumes a rounded and prominent appearance. I have a case under observation of a young gentleman of 12, weak, pallid, and unhealthy-looking, and considerably overgrown for his age; he has always been fond of reading, and has been most studious in his habits, and has thus acquired a most insightly stoop. In this case are to be found all the general causes of the distortion. When such a deformity exists it is quite apparent, and easily recognised, and is due to delicacy of constitution, with debility of muscles in the region, allowing of greater flexibility of vertebrae, and relaxation of the various cervical ligaments.

*Treatment.*—Prevention in all cases being better than cure is as true for this subject as it is for anything else, and when the slightest deviation or stooping tendency is observed, all reading and bending over books or desks must be entirely given up for a time. Good nourishing food must be given, tonics of all kinds administered, and all healthful out-door exercises enjoined—rowing, racket recommended, or the exceeding healthful novel game of Badminton, which necessitates the head being kept in an erect posture, and so placed to correct the deformity. Girls are recommended to use the "skipping-rope" for five or ten minutes daily—galvanism applied to the debilitated muscles; good shower-baths and shampooing occasionally; mechanical instruments are of course recommended—such as a silken band applied round the head tightly, to prevent displacement; to the back of this band on either side of the head two elastic straps are attached, which are again attached to a silken strap passing round the body beneath the arm-pits. This has a powerful effect in keeping the head in an erect position by the constant action of the elastic bands. Bigg recommends this appliance as being most useful—the old-fashioned "Back-board," so much used twenty years ago, when every young lady had to use them for some minutes daily; this has also a good effect in expanding the chest. The use of the elastic chest expander is also recommended for correcting this deformity.

#### 2. WRY NECK, OR TORTICOLLIS.

*Definition and Anatomical Characteristics.*—This consists in permanent contraction of a set of muscles of one side of the neck, which causes it to be drawn permanently to one side, and the head undergoes a series of changes as regards position: 1st. It is drawn downwards to the contracted side in close proximity to the shoulder; 2nd. The face is turned to the opposite side, the eyes and curves of the lips are drawn down; 3rd. We find well-marked rotation in an advanced case of wry neck. All these stages have taken place, and the person thus affected presents a very droll and awkward-looking appearance, particularly when the person thus affected endeavours to look at you: the features of the face are very much distorted; the causes of this distortion frequently depend on structural shortening or permanent contraction of the sterno-cleido-mastoid muscle of one side with corresponding relaxation of the muscles on the opposite side; the scalenus with trapezius muscles are also occasionally at fault, and contribute by their combined action to this distortion, although in many cases you will find the sternal attachment of the sterno-cleido-mastoid very much contracted, and so tense as easily to be felt. It has also been caused by disease of the spinal accessory nerve which supplies the muscles which are frequently affected.

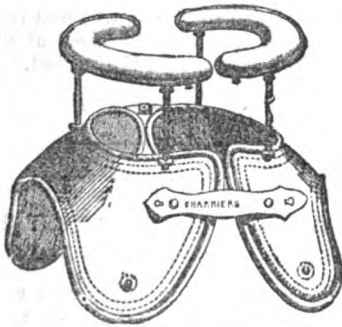
*Treatment* may be divided into the mechanical, operative, and constitutional treatment. Like many other cases, the treatment varies considerably, according to the causes that produced the deformity in the first instance; if all the muscles in the region participate more or less to permanent contraction, or where the muscles are debilitated and flaccid, a mechanical line of treatment may be more

(a) "Experimental Researches on Cerebral Physiology and Pathology," by David Ferrier, M.A., M.D. Edin., M.R.C.P., "West Riding Lunatic Asylum Reports," edited by Crichton Browne, M.D., F.R.C.P. Vol. iii.



useful, and attended with better results than any other method, for one form may have been a long time coming on, and in like manner the treatment must be kept up for a considerable period. Fig. 21 is an instrument that is

FIG. 21.



*Mechanical Instrument used for Wry Neck (Torticollis.)*

simple, easily applied, and is most applicable for such a case, for in many such cases the head can be brought into position with the hands, but it at once resumes its abnormal position on being left to itself. In another case, where there is merely permanent contraction of the sternal attachment of the sterno-cleido-mastoid, tenotomy is certainly the operation that should be adopted, as being simple, rapid, and efficacious; but this operation, simple as it is, ought not to be attempted without having a correct knowledge of the anatomy of the region, considering the very important blood-vessels immediately below and behind the tendon.

*How to perform the Operation.*—Place the patient in the recumbent posture. Chloroform need not be generally administered. Direct the patient to endeavour to turn the head round, and look as much as possible from the non-affected side, which will cause the contracted portion of the muscle to stand out more in relief, and thus easily to be seen and felt. Insert a small tenotome immediately behind, and at the muscle's inferior insertion, into the sternum; turn the knife with its cutting-edge forward, and the tendon is severed with the greatest ease, which is easily ascertained by feeling no further resistance given to the onward progress of the knife; a dossil of lint, a strip of plaster then applied to the puncture made, and the operation is then completed. I performed the operation only the other day on a boy of 16, and he complained of very little pain during the steps of the operation, which afterwards turned out very satisfactorily, and completely effected the object I had in view by removing the deformity.

Wry neck may be due to many other causes besides what I have mentioned, such as inflammation of the glands of the neck after scarlatina or measles, or it may be due to contraction of tissues after a large abscess has existed in this situation; a severe burn healing may cause retraction and contraction to either side. It has been found in some very rare cases to be congenital. Large glandular and cystic tumours may so enlarge as to cause the head to turn to either side. An immense goitre may so cause one set of muscles to act more forcibly, owing to paralysis of the muscles on the opposite side, owing to pressure, &c., and in all cases the treatment must vary, according as the causes vary. After division of the muscle it is perhaps better to keep the head for two days or so in the same position, and at the end of that period to bring the head into normal position, which is generally easily effected if it was due to muscular contraction, and thus retained by two light metallic flexible splints, which are nicely padded and bent to any angle or shape required to fit the natural contour of the neck, and extending from the side of the head to the shoulder, and kept applied by a well-fitting bandage. You must be aware that in some cases after division you are very disappointed to find that the case has not been improved in the slightest degree by the opera-

tion; it perhaps has not been fully divided by the operation, or else it is due to constitutional causes, and all the muscles are more or less affected, and mere division of one is worse than useless.

When wry neck is due to rigid atrophy and structural shortening of the muscles of one side, galvanism, blistering, and gentle traction applied by means of an appliance fastened to a band passing round the head, to which an elastic band is attached, and thus connected by its other extremity to a strap or band attached to the shoulder; strychnine internally, or any other strong nervous medicine, if depending on disease of the spinal accessory nerve.

**DISEASE OF THE CERVICAL VERTEBRÆ.**

When considering disease and deformity generally of the vertebral column, the distortion in this region was more or less included. It, as I mentioned before, was liable to become affected by the various deviations that distort the other vertebral regions, and any deformity in this region claims more attention, as greater inconvenience is experienced by impairment of action and other inconvenience owing to the close proximity of the head, and also being endowed with greater flexibility and mobility than other portions of the vertebral column. Caries of the cervical vertebræ occur, as well as posterior, anterior, and lateral curvature, and must be treated on the same principles as curvature in other regions.

Caries of the bodies of the cervical vertebræ may all coalesce, and bony ankylosis and consolidation take place of those bones affected, and permanent stiff neck takes place, which is perhaps the best termination that can be hoped for, or paralysis of the superior extremities sometimes occurs.

**DISTORTIONS THE RESULT OF SEVERE BURNS AND OTHER INJURIES.**

After the receipt of a severe burn by fire, or the application of boiling water or corrosive fluids, if very great care is not taken during the healing and cicatrization of such injuries, a very unsightly contracted cicatrix will be the result, producing at times great deformity; if it has extended very much on the face the eyelids will be drawn down, the lips considerably everted, saliva flowing down the chin, which in turn is bound down by a tough cord-like cicatrix to the sternum. This, with various modifications, is what generally occurs. Some weeks after the receipt of a very severe burn or scald is the time frequently that patients apply for surgical treatment; but it would have been very much better if they had thought of treatment sooner, as very much more might be done by judiciously placing the head in a proper position during the healing process than after the contraction of granulation and cicatrization, &c. Many appliances are made to suit the circumstances of each case, and are frequently of the greatest use. However, if the case is allowed to heal in the usual way, without any regard to the position during healing, more or less deformity is sure to follow, and I am bitterly opposed to those who think that everything is gained when the ulcer heals, and who try and do everything that will favour such a result; and I say most strongly that position is everything, and by proper position much deformity may be spared to the patient.

*Treatment.*

Much can be done by operative means for these cases, and some have to be operated on again and again to remove completely the distressing appearance; a certain amount may be gained by the first operation, the second still more, and so on. Every case, of course, requires certain modifications in operation, the rule being to free all parts that appear to be contracted. Some surgeons divide these puckered bands in the cicatrix *subcutaneously*; others, again, divide them by a *semilunar incision*.

Mr. Skey recommends a number of small *transverse cuts* along the line of cicatrix. The plan I adopt, and one which I think the best, is to transfix the numerous bands connecting the chin to the sternum with a long

straight bistoury ; through the aperture made I pass some silk, or a tightly-rolled piece of lint or gutta percha, and I leave this in such a position inserted in the flesh until I see some pus. I then withdraw the foreign body, and cut the contracted band above or below, just leaving a little islet of sound flesh remaining. This acts by relieving the tension, and tends to rapid cicatrization of what might have taken a very lengthened period to heal. Some transplant pieces of skin after the manner of skin-grafting on the ulcer during the healing process. Figs. 22 and 23 represent a boy before and after operation, which came under the care of my friend and colleague Mr. Smyly, and shows very well the great deformity before operation and the great improvement after.

After operation great attention should be paid so as to place the head in a proper and favourable position, so as counteract deformity, as if this point is neglected the case will retrograde back to the old position, and the operation be rendered of no effect.

FIG. 22.

*Retraction the Result of a Severe Burn before Operation.*

FIG. 23.

*The same Case Twelve Months after Operation.*

#### DEFORMITIES ARISING FROM GLANDULAR ENLARGEMENT IN THE NECK.

We not unfrequently meet with tumours and chronic enlargement in the neck, which occasionally attain such a size that they are not only most unsightly in appearance, but they are most irksome by their weight and inconvenient position. These swellings vary considerably in size, shape and consistence.

Common enlargement of the lymphatic glands are a very frequent occurrence, terminating in induration, or perhaps in suppuration and abscess ; fibrous, fatty, malignant, and encysted tumours, as well as hydroceles in the neck, may all be met with in this situation ; also

hypertrophy of the thyroid gland, called goitre, or bronchocele, which frequently attains such an immense size, and presents a most distressing and deformed-looking appearance to the person thus affected. As the consideration of diagnosis, prognosis, and treatment is not in the limit of these lectures, I therefore refer you to the various works on surgery, and there you will find the reasons for and against operations fully discussed at great length, according to the importance of the subject.

(To be continued.)

#### REPORT ON SYPHILIS.

By C. R. DRYSDALE, M.D., M.R.C.P.L., F.R.C.S.E.,  
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##### TERTIARY LESIONS OF THE HARD PALATE.

THE following translation of another lecture by Dr. Alfred Fournier, delivered at the Lourcine Female Venereal Hospital, will, I think, prove of interest to English readers. It is from a report made by Dr. A. Pichard in *Le Mouvement Médical*, 22nd August.

The tertiary lesions of the mucous membrane which covers the hard palate are exactly like those we have already encountered in other parts of the mouth. They consist simply in this : ulcerated syphilitic affections and gummy tumours.

You have already, gentlemen, understood what is the special interest which is attached to such accidents on this region. The mucous membrane on which they are produced is closely adherent to the bony parts, so closely that it is confounded with the periosteum of the bone, so as to form a *fibro-mucous* membrane. Now, it follows from this that the lesions of this mucous membrane are easily exposed to have an influence on the subjacent osseous tissue, and to attack the bone itself. Moreover, it is useless to mention what are the conditions of the bone itself. Remember that this is the roof of the mouth, a very thin vault, lamellar, formed by the palatine apophysis of the maxillary and the horizontal part of the palatine bone. Hence, however slight may be the injury of this bone, it is exposed by this alone to be destroyed, and, once destroyed, a communication is at once established between the cavity of the mouth and that of the nose. Rationally, this is what is seen by a simple mechanical inspection of the parts ; and, clinically, this is what is produced. Indeed, however little the ulcerations of the hard palate may be grave or hollowed out, they attack the periosteum, and then the bone, and almost necessarily are complicated with the lesion of the skeleton which forms the naso-buccal septum.

If the attack made on the bone be only superficial, its most external portion is alone affected, and becomes exfoliated ; then repair takes place when the little piece has become eliminated, and the palate is not perforated.

But, in other cases, when the bone has been affected more gravely, things do not go on by any means in such a benignant way : the denuded bone becomes inflamed and necrosed over a greater or lesser extent ; a fistulous ulceration persists for some time at its surface, at the base of which a probe can feel portions of necrosed bone ; these portions then become detached ; a perforation takes place which establishes a communication between the mouth and the nasal fossæ.

Such is the origin, or, at least, one of the origins most commonly met with of these perforations of the palatine arch, which constitute a common accident in tertiary syphilis, and one of those which most thoroughly carries with it the stamp of the venereal specificity.

Let us, then, consider those lesions which are of real practical interest.

Their origin is variable.

1. At one time the osseous perforation is established, as we have seen, after a lesion of the mucous membrane

covering the bone, whether this mucous membrane be that of the mouth or the nostrils. In this case it is the tegumentary lesion which is initial, and the bone affection consecutive.

2. Sometimes the opposite takes place: the perforation takes place because the bone was first of all attacked; it became inflamed and necrosed of itself, because of its own lesion; and then the mucous membranes over its two aspects have been injured, as is the case with all teguments covering diseased bone. Theoretically it would seem that it ought to be rather easy to distinguish these two orders of lesions by their progress. Practically, the fact is quite different, and in many cases, even most generally, we cannot say whether the bone has first become diseased or the membrane. This is because the patients do not come to consult us until the lesion has been far advanced, when the mucous membrane and the bones are affected, and it is no longer hardly possible in these conditions to establish a diagnosis of priority between the lesions of the mucous membrane and bones.

A practical fact there is very necessary to establish, and that is the lateral appearance of those lesions which are about to end in perforation of the bony palate.

Whatever be their origin, these lesions arise and become confirmed in a most insidious manner. First of all, they cause no pain. Besides, they have truly no symptom which evinces their importance, even to the most vigilant patient. In what do they consist, not only in origin, but when the mucous membrane is covering a bone profoundly attacked, necrosed, and dead? In little flattened projections on the palate, ulcerated at their summit—projections comparable nearly to what a symptomatic abscess of dental caries is on the gums. The patient considers this a trifle, and frequently he even does not think of consulting any one for so small an affair. Hence, the benignant aspect of the lesion is marvellously constructed to deceive the patient. I would add that it is benignant enough in some cases to deceive the practitioner, who, if he be not forewarned of the special appearance of the lesion, does not always suspect from the story of the patient, or the aspect of the region, the real gravity of the accident which is going on.

Before a lesion of the palate, however innocent it may seem, be then, gentlemen, always mistrustful; even when there is no great local mischief apparent, a bone clearly denuded, do not pronounce about the lesion until complete examination of the condition of the parts. Begin by drawing forth the probe from your dressing-cases, and see what is at the bottom of the wound. This alone will put you out of the power of making a mistake, which is always possible, and will permit you to make a complete diagnosis.

Where do we meet with perforation of the osseous palate most commonly? All points of the bony palatine vault are not equally disposed to become the seat of these perforations by any means. These perforations have favourite spots, which anatomy alone, *a priori*, could make us foresee: 1st, the median central part of the palatine vault; 2nd, the posterior rather than the anterior parts.

The extent of these perforations is very variable. All superable degrees of mutilation of the hard palate are met with in practice—all, from the smallest perforation, hardly admitting a probe, up to the complete and absolute destruction of the palate.

These perforations are pretty frequently rounded, and sometimes very regularly so; frequently they are oval.

The functional disturbances which result from these perforations are exactly those which result from perforation of the velum, *i.e.*, disturbances in phonation and nasal reflux of food and drinks.

And, as in perforation of the velum, these functional disturbances are here remarkable by the instantaneous nature of their appearance. So long as perforation does not exist, and is only being prepared, these disturbances are absent. At the very moment when the perforation takes place these disturbances are manifested. Nothing

need astonish us in this, since they are due to a cause which is quite material and physical.

In the same way as when the velum is perforated, these disturbances are in proportion, as regards intensity and extent, to the perforation of the hard palate.

When once produced, these perforations, of course, remain constant. First of all, they are surrounded by an ulcerating border. This border becomes absorbed under the influence of suitable treatment, the ulcer becomes cicatrised, and the edges of the opening become covered with a fine cicatrix which adheres to the hard parts, that is to say, to the healthy bony parts.

*Treatment.*—To remedy the functional disturbances which result from perforation or destruction of the velum palati, it is necessary and sufficient that the loss of substance should be closed. As soon as the abnormal communication between the mouth and the nostrils has been filled up by any device whatever, the voice is at once regained, and deglutition becomes normal; as soon as the communication is re-established, at once the disturbance is renewed, and so forth.

It is curious in this respect to see sometimes patients who are aware of this phenomenon bestirring themselves to find out of their own accord means more or less strange to fill the perforation and bring back these functions to their physiological condition. Means the most primitive and rudest often suffice for them, at least, temporarily.

For example: A patient I saw some years ago, affected with perforation of the hard palate, through which a pen-holder could easily have been passed, was in the habit of closing the perforation with a pledget of lint rolled up, and could thus speak and swallow as before.

Here is another case, still more singular: some years ago I received the visit of a patient whom I recognised from his first words to be affected with perforation of the palate, because of his confused and nasal voice. Hardly seated, this gentleman commenced by drawing from his pocket a book of cigarette-papers. I looked on with surprise at what he was going to do. He took a leaf of paper, tore off a fragment, moistened it slightly with his lips, then he glued it on the palate where the perforation existed; and all this took place, gentlemen, in the twinkling of an eye, in less time, certainly, than I take in recounting it. At once his voice became clear and quite perfect. After five minutes' conversation his voice suddenly became altered again. "Ah!" he cried, "my paper has fallen off." Again the same manoeuvre followed; a new leaf of cigarette paper was glued over the perforation, and at once his voice was re-established. Any obturator, then, suffices to re-establish the functions. Well, such is the principle on which are based the different methods of treatment applicable to perforations or destructions of the hard palate.

These methods are of two kinds.

The first kind consists in surgical procedures, which aim at uniting the separated flaps of the velum (*staphyloraphy*), or to fill completely by autoplasmic means the loss of substance of the palate (*vanoplasty*). These two methods are applicable, of course, to different cases. It does not enter into my subject to formulate to you either the indications to which these respond, or the operative processes they require. I have only to mention them to you.

But what I ought to tell you is that the use of surgical procedures may in many cases be rendered useless, and that, thanks to the ingenious apparatus which dental art has devised of late years. Dental art, we must recognise, here is of the most signal service to the patients, by delivering them without operation from two equally insupportable infirmities. On the one hand, it does what surgery can do, and it is not without advantage to substitute it for surgical methods, which are not without danger, and do not always result in what was proposed by any means. On the other hand, it is applicable to all cases, even to those before which surgery remains quite powerless.

In what, then, do the remedies it disposes of consist?

In *obturators*, in true artificial palates, or segments of palates, which, when applied on the vault or at the point where the vault existed, and kept motionless by various

means, take its place and fulfil the functions of the palate. These obturators are constructed either of metal (gold and platinum), or, above all, vulcanised india-rubber. They are kept in place either by hooks or by springs, or other artificial procedures, the study of which belongs to dental art, and would be out of place here.

Let us, then, pass over the technical details. The essential for us, and the only fact to register, is the result furnished by these apparatus. Well, when these have been well constructed, adapted to the regions, and well tolerated by the patients, they almost always furnish satisfactory results, even marvellous in certain cases. With such apparatus the patients can masticate, swallow, and speak almost as well as normally. Sometimes even, and when they have exercised with the apparatus, the functions are absolutely and perfectly re-established. The illusion is then complete, and these artificial palates are substituted almost without disadvantage for normal palates. I have already seen many patients who, affected with perforation or destruction of the palatine arch, and being able neither to speak intelligibly, nor to swallow without reflux, have regained the integrity of those functions, thanks to artificial apparatus cleverly constructed.

To give you a striking example : One of the most celebrated dramatic artists of our time (I regret not to be able to name him) wears one of these artificial palates, which fills up an enormous loss of substance on the hard palate. Without the assistance of this apparatus he cannot speak—his voice becomes at once nasal and trembling and confused. With it he eats and drinks like anyone else, and he speaks especially not like anyone else, but better than anyone, the proof of which is the applause which you and I have often bestowed on him,

## INDIAN MEDICAL NOTES.—No. XXVII.

(FROM OUR SPECIAL CORRESPONDENT.)

MEERUT, September, 1874.

### "THE UNCERTAINTY OF LIFE."

ENCLOSED is a Register of Observations recently supplied. Tables will be sedulously avoided in the medico-serial notes concerning this great country, wherein and whereof it is my pleasure to write ; but so little is really known about Simla, the summer residence of the rulers of this land, that the kind indulgence of the reader interested in India need scarcely be solicited. Who has not some acquaintance here? Though we correspond, still many thousand miles separate husband and wife, children and parents, lovers, relations, friends, not a few of whom have shaken hands, and said, for the last time, that sad and cruel word "farewell!"

With a plethora of matter, I can think of nothing to-day excepting the universal fever prevalent at Meerut. Those affected last year are stricken again ; those who escaped then are down now ; out of a small body of men only three remain well—all total abstainers ; other total abstainers occupy sick-beds adjoining the topers—the fever is no respecter of persons, sometimes simple ague, sometimes typho-malarial striking down the steadiest, the finest, and the best of men. Nor is the disease trifling, for night and day are cases in extreme peril anxiously watched. It may happen that the recreation of scribbling thus may indefinitely be postponed. It may not be out of place to mention some of the names of those at Simla this year, for the information of their friends : Lord Napier and staff, Sir Douglas Forsyth, Generals Johnson, Gaze, Rothney, Colonels Arbutnot, R.A., Bleuitt, 65th, Dillon, Cox, Thuillier, Roberts, Cordner, Maisey, McKay, Madden, 51st, Massy, Rattray, Brooke, Russell, R.E., Hutchinson, and majors and captains innumerable, a few civilians, a few clergymen, Drs. Currie, C.B., Ogilvy, Alexander

Smith, Bryden, Inglia, Morice Sutherland, Tressider, Kidd, Kellett, Hogg, Garden, Calthorpe, Temple Wright, Bradshaw, Warren, and others. Some of these were patients, some were friends whose kindness and hospitality will ever be most gratefully remembered. At Simla the medical officer may, if desirous, go in for practice ; I had the chance of receiving several very handsome liberal fees, ranging from £5 to £20, but for reasons and circumstances too long to be detailed now, only accepted £30 for consultations from civilians.

Concerning Kussuvlee, Dugshaie, Subathor, Sanawar, perhaps a few words may be said another time, when the sickness at Meerut will afford leisure. This is the first of September : a full hospital, the whole station prostrated by fever, perhaps to be followed by cholera. The place is very green, the Mall deserted, only three or four ladies here, mostly sick ; any amount of birds, flies, frogs, creating discordant sound. "Did you do it?—did you do it?" shrieks one dismal bird with irritating monotony, by no means conducive to composition. A certain amount of ophthalmia, cases of aneurism, hepatic abscess, besides fever, occupy attention. One woman has three children : the eldest, a girl of ten, is always well, the others always sick. Another woman, born in the country, she and children are fairly well. The rest suffer from malarial cachexia, enlarged spleens, fever, ague. Hypodermic injections into the trunk of the body of the neutral sulphate of quinine are being used right and left, also recorded for future notes. The cold baths for enteric fever are greatly enjoyed by the sick, but the temperature is only reduced for the time—105° to 106° we think nothing of ; so far, in my opinion, cold baths at certain stages, strychnine at others, are invaluable remedies. The other day, when a catheter could not be passed, the aspirator at once relieved the distended bladder ; but until india-rubber tubing is dispensed with, this priceless instrument will never keep in good repair in Bengal.

Cursed be the clerk and parson ; cursed be the whole concern ; or rather, after the fashion of the Jackdaw of Rheims, accused be the bird. "Did you do it?—did you do it?" still he shrieks, so, enclosing the meteorological table in despair, and with gloomy forebodings, I lay down the pen to-day with just a word of apology for the style, bad grammar, jerking, irrelevant incoherence characteristic of these "Notes." Should the fever abate, and cholera be staved off, there are interesting cases innumerable to relate.

REGISTER OF OBSERVATIONS for Rainfall during 1870, '71, '72, '73, and of Maximum and Minimum Thermometers during 1871, '72, '73, taken at the Quarter-Master General's Office, Simla. Rain gauge observed daily 3.30 p.m. Thermometers at 10.30 a.m. Thermometers in shade with north aspect.

Months.	RAINFALL.							
	1870.		1871.		1872.		1873.	
	Inches.	No. of days rain fell.	Inches.	No. of days rain fell.	Inches.	No. of days rain fell.	Inches.	No. of days rain fell.
January ...	2.00	2	0.83	2	6.32	9	1.93	7
February ...	2.32	3	4.84	11	3.33	9	0.69	6
March ...	6.49	13	0.05	2	2.90	5	3.63	8
April ...	1.61	8	1.75	12	4.47	8	0.28	2
May ...	0.67	6	5.28	18	2.81	10	4.97	11
June ...	10.21	15	14.03	26	9.69	14	2.16	4
July ...	16.90	25	32.18	29	17.66	27	24.15	26
August ...	15.88	23	21.64	29	20.10	29	17.85	23
September ...	6.56	20	2.56	11	6.27	13	6.14	11
October ...	1.67	4	0.00	...	0.44	1	0.80	3
November ...	0.04	2	0.00	...	0.30	2	0.24	1
December ...	0.10	2	0.60	5	0.63	4	3.31	4
Total ...	64.45	128	83.76	145	71.92	136	66.15	105

## THERMOMETERS.

Mean Maximum.			Mean Minimum.		
1871.	1872.	1873.	1871.	1872.	1873.
51.24	46.44	43.19	36.50	34.44	34.94
54.14	48.37	50.36	41.46	36.02	41.78
59.64	62.57	58.99	44.57	47.74	44.21
69.52	67.62	74.43	52.46	51.45	56.17
71.36	79.07	72.90	54.20	58.92	55.70
74.70	81.84	83.50	62.31	63.95	64.20
70.56	72.27	76.00	60.69	60.71	61.50
70.08	71.70	72.40	60.52	59.80	59.50
73.26	69.06	70.50	57.37	56.72	57.70
71.46	64.25	63.60	46.69	49.96	48.90
59.10	59.70	58.32	44.58	45.22	48.62
52.26	54.97	54.90	39.56	42.05	39.70
64.78	64.82	65.84	49.49	50.58	50.66

## REMARKS.

The rains commenced in 1870 on June 16 and ended Sept. 27.  
 " " " 1871 " May 4 " " 9.  
 " " " 1872 " June 14 " " 23.  
 " " " 1873 " July 2 " " 18.

*During the above periods.*

In 1870 there were 19 days without rain, and 49.32 in. fell.  
 " 1871 " 14 " " " 74.71 "  
 " 1872 " 15 " " " 53.08 "  
 " 1873 " 29 " " " 48.14 "

*The following were the heaviest falls in each year:—*

In 1870 on 5th July ... .. 3.02 inches.  
 " 1871 " 16 " " " 4.75 "  
 " 1872 " 11 August " " " 4.03 "  
 " 1873 " 23 July " " " 5.93 "

*The coldest nights in each year were*

In 1871 on 12 January (minimum) ... 27.5°  
 " 1872 " 7 February ( " ) ... 25°  
 " 1873 " 7 and 8 Jan. ( " ) ... 22° each night.

*The hottest days in each year were—*

In 1871 on 1st October (maximum) ... 82.5°  
 " 1872 " 6th June ( " ) ... 91°  
 " 1873 " 8th " ( " ) ... 89.5°

FRED. ROBERTS, *Lieut.-Colonel,*  
*Offy. Quarter-Master General.*

Quarter-Master General's Office,  
 Simla, 30th August, 1-74.

## REGISTERED FOR TRANSMISSION ABROAD.

## THE

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## The Medical Press and Circular.

"SALUS POPULI SUPREMA LEX."

WEDNESDAY, OCTOBER 21, 1874.

## BLOODLESS SURGERY.

THIS subject, which has for some time engaged much of  
 the attention of hospital surgeons, received a new impetus at  
 the first meeting of the Clinical Society this year, in con-

sequence of the presence of Professor Esmarch, who delivered, in excellent English, an address on his method of attaining the desired end. He employs, as our readers are aware, elastic webbing and bands, and although not the first to entertain the idea of operating in this manner, he has carried the plan so far, and had so large a share in perfecting it, that he is regarded by many as the inventor of it.

It is unnecessary here to enter into the vexed question of priority. Our intention to-day is to give an account of Professor Esmarch's method as expounded by him at his late visit to London, and of the remarks called forth on that occasion. He prefaced his address by observing that many surgeons with whom during his visit he had conversed were imperfectly acquainted with his method—a reproach which will not, we should hope, henceforth be applicable. He then said that others used it, but not rightly; whilst others did not consider the prevention of loss of blood of any importance. Although the object of the method was to get good results in surgery, the only mode of proof of its value was its influence on the mortality after operation, especially after the amputation of limbs. A comparison of his results with those obtained by the anti-septic method was favourable, but he admitted that this is obviously inconclusive, from the difference in the hospitals in which they were treated, and the necessity of detailed accounts of individual cases. He therefore compared the statistics of cases in his own practice prior to and after the introduction of his method, and obtained striking results. Out of 88 cases of amputation of the thigh before its introduction, 37 cases, or 42 per cent., died; whilst of 67 of amputation of the leg, 19 died, or 28 per cent. Since its employment, out of 13 cases of thigh amputations, only 1 had died, and only 1 of 12 leg amputations, reducing the mortality from 36 per cent. to 8 per cent. for amputation of the lower limb. Even making allowance for the difference in numbers, these results tell strongly in favour of the bloodless method. Its employment, however, was by no means limited to operations on the limbs, but may easily be applied to other parts. For example, in cases of excision of the shoulder-joint, a piece of elastic tubing may be passed under the armpit, and held over the shoulder by an assistant, or, if the operation is prolonged, it may be fixed by means of an ovariotomy clamp. If this prove insufficient, other means can be used. Professor Esmarch illustrated this by a case that he had under his care last summer. It was that of a man between fifty and sixty years of age, suffering from a tumour the size of an ostrich egg in the axilla, which had been growing two years. Its removal was absolutely necessary, on account of the intense pain which he suffered. The tumour was wedged in between the scapula and the chest wall, firmly adherent to and moving with the scapula, but not with the humerus. Microscopic examination of a small portion showed its structure to be myxo-sarcomatous. As these growths often arise in the sheaths of nerves, it was thought to originate from the sheath of one of the cords of the brachial plexus, and on account of the probability of recurrence, removal of the whole arm with the scapula was decided on. The arm was bandaged with elastic webbing as far as the shoulder, and the outer two-thirds of the clavicle then removed in

order to ligature the subclavian, the pulsation of which could not be felt from the surface. Both artery and vein were ligatured, and the cords of the brachial plexus cut across, and the arm was then removed with the scapula by anterior and posterior skin flaps. The edges of the flaps were united by sutures, and under carbolic oil dressing they united speedily. Professor Esmarch went on to show that superficial tumours—*e. g.*, erectile tumours of the scalp in children—may be readily removed, without hæmorrhage, by introducing needles and applying around the tumour elastic tubing. Operations on the male genitals may similarly be performed, after passing a piece of tubing tightly round the root of the penis and scrotum. As an illustration of a still more advanced use, Prof. Esmarch related the following case: An old man came under his care last winter with extensive epithelioma of the penis, which involved the under-surface of the penis and the scrotum, forming a cauliflower mass the size of the palm of the hand, which bled freely and discharged an ichorous fluid. The urine escaped from a fissure in the centre of the growth. The inguinal glands were much enlarged, and there was great emaciation. For the operation, an elastic tube was passed round the root of the penis, over the front of the thigh on each side, and crossed over the sacrum. The penis and anterior wall of the scrotum were now removed, and then the enlarged glands in the groin with the integuments covering them; the crura penis were afterwards carefully dissected away from the corpora cavernosa and removed; and, an incision in the median line having been made, the scrotal flaps were made to cover the exposed surface in the inguinal regions, and the urethra attached to the edges of the wound. Shortly after the operation, symptoms of pleurisy supervened, and death occurred from extensive cancerous deposit in the lungs. With regard to the results of the method, of three hundred cases in which the bloodless method has been used, no evil has followed in any one. Even in the longest operation—which lasted two hours and a quarter, and which was in a case of necrosis of both tibiae, with resection of one knee in addition—no harm was done by the prolonged absence of the blood. This objection was not therefore valid.

In the discussion which followed this address Mr. MacCormac said that, although no London surgeon had seen so many as 300 cases, he had found no bad results in any case from the employment of the method. In the only case in which marginal gangrene of flaps had been said to have occurred he believed other causes had been found to exist. The only operation in which a question might arise as to its applicability was excision of the knee-joint, when the oozing due to the sudden return of the blood to the weakened capillaries might be inconvenient by spoiling the splint and necessitating movement. The method has great advantages in the examination of injured parts and the search for necrosed bone.

Mr. Henry Lee regretted that Professor Esmarch had not distinguished between two classes of cases—*viz.*, those in which the blood was left in the part removed, and those in which it was previously driven out by compression. In the former class he did not see any advantage in the use of the elastic bandage over the clamp. Of the other class, he mentioned a case of tumour in the

palm of the hand, the removal of which would have been impossible without Esmarch's method.

Mr. Clover ascribed the superficial sloughing of the flaps in the case mentioned by Mr. MacCormac to caustic action of the carbolic acid spray on the surface when not neutralised by the alkaline blood. He considers the ordinary tourniquet with a narrow bandage better for encircling the limb, as it is not liable to snap like the elastic tubing when brittle from keeping.

Mr. Prescott Hewett said that, having assisted at the operation, he considered Mr. H. Lee's case alone a sufficient proof of the value of the method. He believed it would have been impossible otherwise, the tumour being attached to one of the metacarpal bones, and closely surrounded by the vessels; as it was, the operation was only a dissection, the parts looking like a wax model.

Professor Esmarch, in reply, said that he did not see how the clamp could be applied in such cases as for the scrotum, &c.; while, if it could, it would only be another application of the bloodless method, and the india-rubber tubing was simplest. He had never seen it break, and did not see how it could if well applied and of good material. He pointed out that a common tourniquet is passive, while the elastic rope is active in its pressure; and certainly the distinction is worth remembering.

Altogether, the Clinical Society may be congratulated on Professor Esmarch's visit.

#### ADULTERATION PROSECUTIONS.

SEVERAL prosecutions have taken place within the last week which are fraught with much interest to those who are anxious for the successful working of the Adulteration Act, as well as to the public who are being cheated and the traders who are cheating them. They are cogently illustrative of the utter roguery of a certain class of unscrupulous dealers and of the wriggling of manufacturers in the endeavour to escape the necessity of honestly stating the constituents of what they sell.

At Bradford a man named Knight was prosecuted for selling "Liebig's Liquid Extract of Beef," which was stated to be "the only beef extract that does not require cooking or warming, it being in the form of a liquor. It is composed chiefly of pure extract of beef, obtained from the best parts of the animal, wine, a small quantity of fine old brandy, and quinine." The town clerk stated that the so-called "Liquid Extract of Beef" contained a very minute portion of beef, no quinine, no Madeira wine, and no brandy, but something else to make it palatable. Directions were given on each bottle to the effect that "invalids may take a wineglassful three times a day. This quantity has been found to sustain life for months when the patient could not retain any other kind of food on the stomach." The borough analyst, however, swore that the article contained hardly any beef, and was mainly composed of Tarragona wine, sweetened with sugar and flavoured with allspice, containing 15 per cent. of pure alcohol. "There was," he said, "no quinine, no brandy, no Madeira, and it appeared to him to be merely a sly method of drinking." The defence was that the prisoner obtained the preparation from the "highly respectable" firm of Digby, Gandy, and Co., of Liverpool; but the



magistrates properly refused to accept such plea, and fined him £2 and £2 10s. costs. If they could have sent the members of the "highly respectable" firm or the equally respectable makers of the compound for three months to the treadmill the judgment would have been nearer to the level of justice.

In three other cases the defendants were charged with selling adulterated mustard without plainly declaring the admixture. In one case the addition to the mustard-flour was described on the label as "choice condiments," but was in reality turmeric *pur et simple*; in another the adulteration was 30 per cent. of starch; and in a third the sophistication was 20 per cent. of flour and turmeric, and on the label were the words, "This is an admixture in which no injurious ingredient has been used." The question arose as to whether this announcement was sufficient notice to the purchaser, and the magistrates ultimately dismissed the summons, under guidance of a judgment given in a previous case by Lord Chief Justice Coleridge and Justices Brett and Grove. The judgment quoted was that in the appeal of *Pope v. Tearle*. We reproduce it here:—

"Lord Coleridge: I think the respondent is here entitled to our judgment. There are two sections of the Act (35 and 36 Vict., cap. 74) which bear upon this case, and it appears to me that the facts bring him within neither of them. It appears to me that the true and reasonable construction of the Act interprets it thus: Whereas the phrase in the former section contemplated the case of the adulteration being by means of some noxious ingredient, the 3rd section went on to say, if an article of food or drink be mixed with a substance not noxious, but fraudulently added for the purpose of increasing the weight or bulk, and it be sold by a person knowing this who does not declare it, then such person shall be guilty under section 2. The respondent here is not within it; for though he sold an article so mixed, yet, by language and by label, he affected the purchaser with knowledge, and so did declare the admixture. He is not therefore within section 3. But supposing that he had not declared the admixture, and had sold, then he would have been brought within section 2. As it is, however, he is not within the latter section, for the simple reason that he has not here sold as unadulterated any article of food which was adulterated.

"Justice Brett: I am of the same opinion.

"Justice Grove: I read the Act in this way: Sections 1 and 2 contemplate the mixing of noxious ingredients in articles of food and drink. The 3rd section, in order to avoid any doubt as to what adulteration is, says that the admixture of foreign substances, whether noxious or innocuous, is all the same adulteration. Is there anything in the section to make it necessary for the seller to declare what is the substance and quantity of the materials mixed? I think not. The words '*and no other*' in the 3rd section may well mean no noxious substance—nothing, that is to say, except for the purpose of increasing the weight. Judgment must, therefore, be given for the respondent (the grocer)."

#### SOCIETY OF MEDICAL OFFICERS OF HEALTH.

At the meeting of the Society on Saturday evening last, Dr. Letheby, the President, delivered an address on "The Estimation of the Sanitary Condition of Communities, and the Comparative Salubrity of Towns." He said that this important problem is not nearly so simple, or so easy of solution as is generally supposed, and that the common and vulgar method of estimating it by the death-rate, as usually calculated, is entirely fallacious. In proof of this he alluded to the disturbing effects of migration,

the birth-rate, the proportion of the two sexes, and other circumstances in vitiating the results, and he quoted a number of authorities in proof of it. As regards migration, he said that when there is a notable migration of young adult lives from country to town, as is generally the case, the death-rate of the rural district in which the young lives have been produced is unduly augmented, while that of the town, which acquires such lives without the vital cost of rearing them, is proportionately reduced. This is the condition of things in every large town in the kingdom, and he took London as an example. Seven-and-twenty years ago the population of London, as determined by the census of 1851, was 2,362,236. In 1861 it amounted to 2,803,989 persons; and at the last census, in 1871, it was 3,254,260, so that in twenty years the total increase was 892,024 persons, or nearly 38 per cent. The natural increase in that time, as estimated by the excess of births over deaths, was only 595,111, or only about 25 per cent., the difference, therefore, namely, 296,923, or nearly 13 per cent., is referable to the additions made to the population by the entrance into it of fresh lives, and this is altogether independent of the large number of such lives which took the place of those who, from sickness or other cause, left the metropolis to live and die elsewhere. All these were young healthy lives, at perhaps an average age of 20, and the cost of producing them must have been considerable. In London the death-rate of infants is so large that not more, and probably much less than 60 out of every 100 born, live to be 20 years old. At this rate the 296,923 young adults who were added to the population of London during the last twenty years, would, if they had been produced here, have cost 494,872 births, and 197,949 deaths, not one of which has appeared upon the registers of the metropolis. It is hardly possible to compute the exact number of young persons who, in addition to the preceding, have come to London and taken the place of the sick and infirm who have left it; but an examination of the census will show that nearly half the population of London are aliens, and have migrated to it from the provinces. Probably the net immigration during the ten years from 1851 to 1861 amounted to 31,820 persons per annum, or rather more than double the annual number of young recruits (13,356), which, as before said, went to the increase of the population. Assuming that they were at an average age of 20, they would, if they had been produced in London, have cost annually 53,030 births, and 21,213 deaths. Some of these or their equivalents may have appeared upon the registers; but it is easy to perceive how the vigour as well as the numerical strength of London is maintained without the cost of infant life, and that which is a gain to London is necessarily a loss to other places. How much the statistics of mortality have been disturbed by such migrations cannot be precisely estimated; but no doubt they have been vitiated to such an extent as to render them useless as exponents of facts. Dr. Letheby showed from another set of facts, namely, the proportions of males and females at different ages in the population of London, that there was a large influx of young adult lives; for although the proportion of children in the population of London is relatively small, especially in the heart of the city, where it amounts to only 263 per 1000 of the population, as against 356 for all England, yet the number of young persons, at from 15 to 35 years of age, is strikingly large. In the City proper it amounts to 415 per 1000 of the inhabitants, and in the whole metropolis it is 360 per 1000; whereas in England and Wales it is but 335 per 1000. At 55 and upwards the number for the metropolis is only 89 per 1000, as against 105 for all England. The proportion of females also in the population of London is very large. In the heart of the city the number of women at from 15 to 55 years of age amounts to 337 per 1000 of the inhabitants, and in the rest of the metropolis it is 315 per 1000, although for England and Wales it is only 280 per 1000. All this is attributable to the migratory character of the population of London, for at

the census of 1861 there were more than half a million persons who could hardly be said to have a fixed home in London. There were, for example, 153,104 female domestics, besides about 96,400 milliners, dressmakers, shirt-makers, sempstresses, &c., of less than 35 years of age; and these, with rather more than 257,000 shopmen, porters, messengers, clerks, servants, labourers, mechanics, &c., make up a total of 506,676 persons under 35 years of age, who would doubtless leave London when from sickness or other cause their labour became unremunerative. This is clearly shown in the tables of mortality at different ages. Up to the age of 10, and after the age of 25, in the case of males, and 35 in that of females, of death-rate in London is much greater than it is in all England; but at the intervening ages, from 10 to 25, and 10 to 35 respectively, the death-rate in London is much below the average, showing that persons at those ages go away from London when sickness oppresses them; and this is further proved by the fact that, as the mortality falls in London, it rises in the neighbouring counties where the sick and infirm resort. The disease which most strikingly exemplifies this is phthisis, a disease which not only attacks persons in the prime of life, but also gives them ample opportunity for removal to the country. Dr. Letheby therefore concludes that the gain to London by such migrations is three-fold—in the first place, the population is constantly receiving a large number of young adult lives without the vital cost of producing them; in the second place, it gains by the substitution of such lives for the weak and ailing; and in the third place, it gains by the fusion of such lives of high value with the general mass of the population of comparatively low value: for at the age of 20 the death-rate is only about 7 per 1000, whereas that of the general population is more than 24 per 1000. A like condition of things prevails in all the cities and large towns of the kingdom, and it so seriously disturbs the death-rate, as usually calculated, as to make it no longer expressive of facts. In those cases where sick persons resort to public hospitals or to the favourite sea-side places of England, the disturbance is still greater. There is a good example of this in the western division of the city of London, where St. Bartholemew's Hospital is situated, for, according to the returns of the registrar-general, the average death-rate of that district is from 45 to 50 per 1000, whereas the true death-rate is from 27 to 29 per 1000. In like manner the death-rates of Whitechapel, of Islington, and of other districts of London are disturbed by the presence of large hospitals. Another circumstance which destroys the sanitary value of a death-rate is the birth-rate: this is illustrated by the fact that wherever the birth-rate is high, the death-rate is high also, and this is observed not only among the nations of Europe, but also among the registration counties and districts of England. France, with a birth-rate of only 26·26 per 1000 of the population, has a death-rate of only 23·63 per 1000; but Austria, with a birth-rate of 39·86 per 1000, has a death-rate of 30·34. Spain, Italy, and Prussia, exhibit the same general relation; and in England the registration divisions, the counties and the towns show a similar condition of things. Taking, for example, the ten registration divisions of England and Wales, it will be noticed that the birth-rates and the death-rates are closely comparable. Beginning with the south-western counties, where the birth-rate is only 32 per 1000 of the population, and the death-rate less than 20 per 1000, it will be noticed that, as we pass on in the order of increase, the birth-rates and death-rates advance together, so that when we come to the last of the series—the north-western counties, where the birth-rate is 39 per 1000, the death-rate is 26·3. The same thing is observable in the individual counties of England. Twenty of them have an average birth-rate of from 30 to 33 per 1000, and a death-rate from 18 to 21 per 1000, while the rest of them (21 in number) have a birth-rate which ranges from 33 to 42 per 1000, and a death-rate from 19 to 27. In the former group the mean birth-rate is 31·8

per 1000, and the death-rate 19·6; and in the latter they are 35·7 and 22 respectively. As a general fact, it may be said that, where the birth-rate is from 30 to 31 per 1000, the death-rate is about 19; where it is from 31 to 33, the death-rate is nearly 20; where it is from 33 to 35, the death-rate is nearly 21; where it is from 35 to 37, the death-rate is nearly 22; and where the birth-rate exceeds 37 per 1000, the death-rate averages 24·4. As individual examples, the Ridings of Yorkshire may be taken as good illustrations. In the North Riding the birth-rate is 33·9 per 1000, and the death-rate 20·5; in the East Riding the numbers are 34·5 and 22·7; and in the West Riding they are 33·1 and 21·9. It is not possible, without considerable labour, to compare the birth-rates and death-rates of the town and rural districts of England; but Dr. Stark has done this for Scotland, and the results are remarkably instructive, for in the principal towns of Scotland, where the population exceeds 25,000, the average birth-rate is 38·73 per 1000, and the death-rate 28·25. In the large towns, with a population of from 10,000 to 20,000 persons, the birth-rate is 38·07, and the death-rate 24·57; in the smaller towns the numbers are 36·44 and 21·24; and in the rural districts they are 31·49 and 16·93. So also if we take the large towns of England and Scotland and group them according as the birth-rate is over 38 per 1000 or below it, it will be found that in the former case the average birth-rate is 39·6 per 1000, and the death-rate 29·5; whereas, in the latter the numbers are only 34·4 and 25·7. These facts are indisputable, and, according to Dr. Letheby, they afford conclusive evidence of the reciprocity of these numbers. They show, indeed, that they are in some way mutually dependent, or perhaps related as cause and effect. Dr. Stark believes that a high birth-rate is an effort of nature to compensate for the excessive waste of life in large towns; and the registrar-general appears to hold to a like opinion, for he says that, "wherever from the combined effects of intemperance, dirt, bad ventilation, and drainage, the mortality is greatest, there also the ratio of births to the population is highest." But Dr. Letheby reverses the argument, and says, with Mr. Andrew Watt, of Montreal, that "whosoever the ratio of births to the population is highest, there also the mortality is greatest, and the conditions being equal, will be in proportion to the birth-rate." Dr. Letheby has already expressed this opinion in one of his annual reports of the sanitary condition of the City of London, and the registrar-general has replied to it in a memorandum of the "Significance of Rates of Mortality." But Dr. Letheby complains that the document is obscure, and does not touch the question at issue, but raises a new question as to the effect of an excess of births over deaths, saying that "the mortality of a population with an excess of births over deaths is lower than the mortality of a stationary population where the births and deaths are equal." Although this is no part of Dr. Letheby's proposition, yet he accepts it as proof of the relationship of births and deaths. It is curious, however, says Dr. Letheby, to note that the registration facts of the country do not support the registrar-general's proposition, but show that as the excess of births over deaths becomes larger and larger, so also does the mortality of the population. If the registration counties of England be arranged in the order of birth-rates it will be found not only that the death-rates advance with the birth-rates, but also that the excess of births over deaths becomes larger. Where, for example, the birth-rate ranges from 30 to 32 per 1000 of the population, and the death-rate averages 19·2, the excess of births is only 11·9; where the range is from 32 to 34 per 1000, and the average death-rate is 20·1, the excess is 12·8; and so on step by step until we reach an average birth-rate of 39·8 per 1000, with a death-rate of 24·7, when the excess is 15·1. The explanation of all this is to be found in the fact that the mortality of infants is excessively high (46·5 per 1000 in the first month of their existence, and 150 per 1000 in the first year), and that it contributes very largely to the total mortality. In all England and Wales, where

the average birth-rate is 35·2 per 1000 of the population, the deaths of children under 5 years of age amount to 40 per cent. of the total mortality. If this were not so, the natural rate of increase of the population would be prodigious. At present the annual excess of births over deaths in England and Wales is 12·8 per 1000 of the population; but suppose that it was 18 per 1000, as it is in two of the registration counties of England, the population would be doubled about every 40 years; so that the 22,712,266 of the census of 1871, would become rather more than 45 millions in 40 years, and nearly 91 millions in 80 years, which in a long time, in 120 years, or about two generations, would be nearly 182 millions, which is the estimated population of India. But this sort of thing could never last, for in about 240 years the population of England and Wales, unless it was exported year by year in enormous masses, would reach to rather more than 1,550 millions of persons, who would be as thickly placed over the whole country as the inhabitants of London are at the present moment. Happily this cannot happen, for, despite the views of the registrar-general, the birth-rate is the controlling element of the death-rate, and before the relative health of different communities can be compared the apparent rate of mortality must be corrected for the rate of increase by births as well as immigration.

Another circumstance which seriously interferes with the value of the death-rates as estimated in the usual way, is the relative proportion of males and females in the population, for as their death-rates are different (23·3 and 21·5 per 1000 respectively), the common death-rate must necessarily be influenced by it. In infancy and childhood the death-rate of males is nearly 10 per 1000 above that of females, so that in large cities where women and children abound, the death-rate must be under the normal proportion.

Other circumstances were referred to by Dr. Letheby, and illustrated by examples, as affecting the death-rates of the country. He showed that the practice of grouping places together under the name of some one town or place within the district was a source of error, and he referred to the fact that the census numbers of the population, taken in haste and at long intervals, were too uncertain for statistical purposes, and he quoted Mr. Sargant to show that the population of England and Wales was underrated by more than half a million—2·3 per cent.; that with respect to persons under twenty years of age, it was underrated by 5·5 per cent.; and that in the case of infants of less than a year old, the numbers were deficient to the extent of 12 per cent. with males, and 10·5 per cent. with females. In the second year of life the deficiencies were 11·5 and 11 per cent. respectively; and in the third year they were 2 and 1, making an aggregate deficiency of from 6 to 7 per cent. in the return of children under five years of age; and this deficiency was most irregular, being greater in some places than in others, and therefore irregularly affecting the death-rate. In addition to this, the common method of computing the population of a place from year to year between the census periods was eminently faulty, as the rate of increase was uncertain, there being no accurate registration of births, a faulty registration of deaths, and a total ignorance of the migratory movements of the population. Any attempt, therefore, to deduce laws from such imperfect dates must necessarily result in failure, and it is absurd to suppose that the mere proportion of deaths to an uncertain population is any proof or evidence of the favourable or unfavourable condition of the health of the people. In determining so important a question, reference must be made to the ages, habits, and employments of the inhabitants, casual immigrants must be distinguished from permanent residents, and the loss by emigration, especially of sick persons, must be inquired into, the proportion of the sexes, the number of births, the vicissitudes of climate and seasons, calamitous events, and other modifying circumstances must be carefully examined. Until this is done the death-rate, as usually

calculated, and ostentatiously paraded as an indication of salubrity, is not merely ridiculous, but threatens, as Mr. Rumsey says, to become a public nuisance. What more striking proof, indeed, can we have of the untrustworthiness of these so-called "death-rates" as evidences of sanitary progress than the remarkable fact that they remain unaltered, and, as it would seem, unaffected by such progress. Look at the enormously large amount of sanitary work which have been accomplished in London and in the large towns of England during the last twenty years; yet the death-rate, as calculated in the usual way, remains the same. In the City of London during the last three decades the death-rates were 25·20, 24·94, and 25·11 per 1000 of the population. In the whole metropolis they were 24·48, 23·86, and 24·14 per 1000. In the large towns and town districts of England they were 24·45, 23·52, and 25 per 1000, and in the whole of England they were 22·64, 22·11, and 22·69, differences which are insignificant when we consider how much has been done to improve the sanitary condition of the country.

Dr. Letheby then examines the method of determining the sanitary condition of a place by the death-rates at different ages, and he shows that, although this is a better method than the last, yet it is not sufficiently accurate for sanitary purposes, inasmuch as the errors of the census, the migrations of the people, and other circumstances invalidate the results. Taking the death-rate of children under a year old as an example of the difficulties of the case, he shows that the census number of such infants gives most inaccurate results; the census number, in fact, is the number of such infants living on a particular day, and born within twelve months of that day; whereas the deaths which have occurred in the year embrace not only the deaths of those born in the census year, but also of those born in the preceding year, and not a year old at the time of death. Suppose, therefore, that the real death-rate of male infants was 160 per 1000: of this number 50, or nearly one-third of the whole number, will have occurred in the first month of existence, 18 in the second, 13 in the third, and so on in a gradually decreasing ratio to the end of the year, when the number will be less than 7. It follows from this that every 1000 infants born at regular intervals during the year will lose by death 105 during the census, or calendar year, leaving 895 to be registered or enumerated at the time of the census; but the real number of deaths of infants under a year old has been 160—viz., 105 of those born in the census year, and 55 of those remaining over from the preceding year. The death-rate, according to this method of computation, will be 160 per 895, or nearly 179 per 1000; whereas the true death-rate is only 160 per 1000. A like error, though not of such magnitude, pervades the whole of the death-rates, and even the aggregate death-rate of the country. It is manifest, therefore, that the death-rates, as usually calculated, are not expressive of facts, and cannot be accepted as reliable exponents of the sanitary condition of a place.

Dr. Letheby concluded his address by referring to the circumstances which must be considered in estimating the salubrity of a place, saying that the sickness and mortality of young children, when properly estimated, are the signs of home influences; the like phenomena of adults are the indications of wholesome or unwholesome habits, occupations, &c.; and that the sanitary condition of a population can only be properly determined by reference to the statistics of disease as well as of mortality, and that all the modifying circumstances of age, sex, migration, climate, season, &c., must be carefully considered. He promised to pursue the subject in this direction.

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PROFESSOR WILLIAM TURNER. M.B., F.R.S., of the University of Edinburgh, has been appointed Lecturer on Anatomy and Physiology on the Aris and Gale foundation of the Royal College of Surgeons of England.

## Notes on Current Topics.

### A New Tonic—"Boldo."

RESEARCHES have been made by Messrs. Dujardin, Baumetz, and C. L. Verne on this proposed addition to our list of medicines.

Boldo is a tree found in Chili, of a height of five or six feet, isolated on mountainous regions, with yellow blossom and a verdant foliage. Its bark, leaves, and blossom possess marked aromatic odour, resembling a mixture of turpentine and camphor. The leaves contain largely an essential oil. It contains an alkaloid which is already called "holdine." Its properties are chiefly as a stimulant to digestion and having a marked action on the liver. Its action was discovered rather accidentally—thus: Some sheep which were liver-diseased were confined in an enclosure which happened to have been recently repaired with boldo twigs. The animals eat the leaves and shoots, and were observed to recover speedily. Direct observations prove its action—thus, one gramm of the tincture excites appetite, increases the circulation, and produces symptoms of circulatory excitement, and acts on the urine, which gives out the peculiar odour of boldo.

### Health of Kensington.

FROM the report of Dr. Dudfield, medical officer of health, it appears that the mortality during the year 1873 was the lowest on record. In his report he gives the following figures, which show the death-rate in Kensington, the metropolis generally, and the great divisions into which it is mapped by the Registrar-General.

The death-rate in 1873 was: In Kensington, 18·3 per 1,000; London, 22·5; West Districts, 20·5; North, 21·2; Central, 25·0; East, 25·0; South, 22·0.

The deaths from the seven principal diseases of the zymotic class were 290, equal to 119 per 1,000—viz.: Small-pox, 0·4 per 1,000 deaths; measles, 15·6; scarlet fever, 4·1; diphtheria, 4·5; whooping-cough, 18·0; fever, 16·8; diarrhoea, 59·6. It appears that Kensington is about the healthiest suburb.

### Scarlatina in Ireland.

THE latest report of the Registrar-General is not more assuring than that to which we referred last week. The weekly return states that the deaths in the Dublin district were 27, and those in Belfast 28. The return for the quarter ending October 3rd is still more unsatisfactory. The Registrar-General reports that in Dublin scarlet fever proved fatal in 250 instances, in other words, 1 in every 7·6 of the total deaths resulted from this disease. For the last twelve months scarlet fever has been epidemic in Dublin, and during that period 747 deaths have been caused by it, i.e., 9·2 per cent. of the total deaths registered, and 24 in every 10,000 of the population. The deaths from this plague were distributed during the four quarters as follows: In the last quarter of 1873, 151; first quarter of the present year 170; second quarter 176; and third quarter 250; showing that the epidemic has been steadily increasing instead of diminishing.

### Poisoning from Eating Tunny.

THIS fish, which is eaten much in France and southern Europe, has not been accredited usually with any bad qualities. In the Parisian markets it is rather prized. It tastes something like veal, and is firm and white. The *Semaphore Journal* records a case of four people who, having eaten a *friture* of tunny, were seized with urgent symptoms of poisoning—vomiting, headache, purging, and febrile symptoms. Such accidents were attributed rather to something on which the tunny had fed than to any degeneration in the fish itself.

The sufferers all recovered, though they had been severely affected.

### Scarlet Fever in London.

SCARLET fever is now so prevalent in London that most of the vestries are issuing printed directions for preventing the spread of the disease. The Local Government Board has prepared the Homerton Small-pox Asylum for the reception of patients suffering from scarlet fever. The building has been disinfected, and is now ready for use.

### New Medical Students.

THE following return of students entered at the metropolitan medical schools since October, 1873, includes, as will be seen, last summer's entries, and the register is not yet complete, so that a few more will doubtless be added to the roll: St. Bartholomew's 109, Guy's 86, University College 81, St. Thomas's 79, St. George's 44, Middlesex 44, London 36, St. Mary's 33, King's College 26, Westminster 23, Charing Cross 22. Returns are not yet made for the provincial schools, but we hear that they are about the average. At Birmingham 26 new students have already entered.

### Patrick M. Mackenzie, M.D.

ON the 19th inst. died, in London, Dr. Patrick M. Mackenzie, youngest son of the late Kincaid Mackenzie, Esq., Lord Provost of Edinburgh in 1817-19. Dr. Mackenzie was born in 1821, and educated at the academy and university of his native city. He graduated as M.D. in 1844, and went to Tobago in 1847, and has since practised there.

### Scarlet Fever in Liverpool.

SCARLET fever has broken out at Liverpool. On the 14th two men were fined for having let houses which had contained fever patients without having had them disinfected. A good example this.

### Soorjocoomar Goodeve Chuckerbutty, M.D.

ON Sept. 29 died Dr. Soorjocoomar Goodeve Chuckerbutty, Physician to the Calcutta Hospital, Professor of Materia Medica and Clinical Medicine in the Calcutta Medical College, and Surgeon-Major in the Bengal Army. Dr. Chuckerbutty obtained two years' leave of absence from India, and soon afterwards came to London. While there his health apparently improved, and he was present at the meeting of the Association in Norwich. He was only forty-eight years old. Dr. Chuckerbutty was the youngest of four natives of India who came to study me-

dicine at University College in 1845. He took the degree of Doctor of Medicine at the University of London in 1849, and became a member of the Royal College of Surgeons of England, and soon afterwards returned to Calcutta.

### Naval Medical Service.

WILL the authorities who refuse to listen to medical journals take a hint from another source? The *Broad Arrow* says: "It is well known that for several years past there has been such a dearth of medical officers in the navy, that many seniors have been compelled to accept very subordinate positions; but as this was generally an alternative of going on half-pay, they were too glad in most instances to get employment at the sacrifice of dignity; and, so long as the appointment was a tolerably comfortable one, there has been but little complaint. Matters, however, seem to be coming to a crisis, as we notice that a second-class staff-surgeon and a medical officer of fourteen years' standing is now serving in one of the boys' training brigs—a lieutenant's command, and an appointment hitherto invariably held by a junior. Can we wonder that medical men are chary of entering a service where so little consideration is now-a-days shown either to their age or rank, and where, after long years of foreign service in a junior grade, they find themselves in a position even more subordinate than that in which they commenced life."

### Small-pox in Manchester.

DR. LEIGH, officer of health to the Corporation, has called attention to an outbreak of small-pox in the city. Dr. Leigh considers that the disease has been imported by one of the regiments which recently left Birmingham.

### Cremation.

IN our last we gave currency to a report that the body of Lady Dilke had been taken from England to Germany for cremation. It appears that there were good grounds for the report, for in the *Times* last week its Berlin correspondent gives particulars of the affair, at which he was present. He says: "The body of Lady Dilke, who died five weeks ago, in London, was burnt on the 10th inst., at Dresden. The ceremony was performed in the furnace recently invented for burial purposes by Herr Siemens, and the relatives of the deceased lady permitting strangers to be present, a large number of scientific men attended the experiment. When the company had complied with Herr Siemens' request to offer up a mental prayer, the coffin was placed in the chamber of the furnace; six minutes later the coffin burst; five minutes more and the flesh began to melt away; ten minutes more and the skeleton was laid bare; another ten minutes and the bones began to crumble. Seventy-five minutes after the introduction of the coffin into the furnace all that remained of Lady Dilke and the coffin were 6lb. of dust, placed in an urn. The brother-in-law of the deceased was present."

### Sanitary Panics.

WE observe that the sanitary inspector of St. Luke's has recently called the attention of the vestry to the fact

that he frequently finds articles of clothing and wearing apparel being made up in rooms where persons are suffering from fever and other contagious diseases. The sanitary inspector, in his report to the vestry, speaks of two cases in which ladies' corsets and dress "improvers" were being recently manufactured for a wholesale city house in tenements, or rather rooms, where persons were lying ill with scarlet fever. The sanitary inspector took the precaution of having the articles disinfected in the oven set up by the vestry for the purpose, but he says the operation was carried out very much against the inclination of the parties who were making up the corsets and dress "improvers."

Now, without at all desiring to discredit the statement of the inspector that disease may be thus propagated, or to discourage him and others in the exercise of every reasonable precaution, we feel apprehensive that the sanitary hobby is being ridden to death, and that there may be danger of making prudence ridiculous by over-precaution, if we may use such a phrase. It is quite open to debate whether a dress improver manufactured in an atmosphere of scarlatina, carried thence in the open air to a warehouse, stored there, perhaps, for months, brought again to a distance by a purchaser, and worn occasionally, as dress-improvers are wont to be used, could in any probability carry with it through all these stages the living scarlatinal germ. Whatever opinion may exist on such a point, there can be no doubt that the avoidance of such danger, if any there be, is, under present circumstances, practically impossible. No system of inspection nor any penal legislation could prevent the starving stitcher from taking in work when there was any to be got, and the merchant could hardly be expected to investigate the state of health of the workman's family before receiving back the finished article. The only thing which might be done would be to insist on disinfection if cases requiring it were detected. If the perils from such causes with which we are constantly threatened were as real and as alarming as we are told, we rather think that we should not be here to write of them, nor our readers to peruse them; universal depopulation would be inevitable.

### Cambridge University.

THE following appointments in the Medical Department of this University were officially declared on Thursday last:—

W. P. Hiern, M.A., St. John's, and R. Apjohn, B.A., Dublin, examiners for the first; Dr. Bradbury and J. N. C. Davies-Colley, M.C., M.A., of Trinity College, for the second; and Dr. T. Clifford Allbutt and Dr. C. J. Hensley, for the third M.B. examinations in the ensuing year.

J. Wood, F.R.S., F.R.C.S., and Christopher Heath, F.R.C.S., examiners for the degree of Master in Surgery during the ensuing year.

J. W. Ogle (M.D. Oxon.), Assessor to the Regius Professor of Physic during the ensuing year.

### Fallacious Evidence of the Senses.

WE were seriously assured the other day by a gentleman near the late explosion at Regent's Park that the earth rose up near him like an enormous wave of the sea. The

*Pacific Medical Journal* refers to the possibility of multitudes of observers being deceived simultaneously in regard to the apparent motion of trees and similar objects during the agitation caused by an earthquake. During the great earthquake of October, 1869, trees were seen, according to the testimony of observers, to rock so as to touch the ground with their lateral limbs, which were in reality entirely too high to render it possible that they should do so. Persons looking at tall chimneys observed the same phenomena. The explanation lies in the motion of the observer, which, concurring with that of the object, leads to a false impression on the visual organs.

There is an illustration familiar to every one of error of perception occurring in direct opposition to known truth. When one is seated in a train-car on a railroad, the train being stationary, the motion of a second train on a parallel track appears to be transferred to that in which the observer is seated. The moving train appears to be stationary and the stationary train to move; and this in spite of a perfect knowledge of the reverse possessed by the observer.

The rapid motion of a luminous body always deceives the eye by presenting the appearance of a line. Let any number of persons observe for the first time a stick lighted at the end twirled rapidly in a circle; they would all affirm with entire confidence that a circle of fire really existed.

#### Accident to a Medical Man.

On Wednesday morning last intelligence reached Cavan of the death of Dr. Cassidy, of Dowra. Deceased was riding a spirited horse, and the animal, becoming restive, threw him suddenly to the ground, causing instantaneous death. Dr. Cassidy was an ex-student of the Catholic University, and was one of the Irish Ambulance Corps during the late French war.

#### New Books for the Month, in Medicine, Surgery, and Science.

##### *Medical and Surgical.*

GALE (H. Stanley), *Clinical Atlas of Skin Diseases*. Coloured plates. Part I. 8vo. 3s. 6d.

Guy and Ferrier, *Principles of Forensic Medicine*. 4th ed. 12s. 6d.

Hull (Edmund C. P.), *The European in India; or, The Anglo-Indian's Vade Mecum*. 2nd ed. 6s.

Mair (R. S.), *Medical Guide for Anglo-Indians; being a Compendium of Advice to Europeans in India relating to the Preservation and Regulation of their Health*. 3s. 6d.

Moore (W. J.), *A Manual of Family Medicine for India*. 8s. 6d.

Muter (John), *An Introduction to Pharmaceutical and Medical Chemistry (Theoretical and Practical)*. 15s.

Thompson (J. A.), *Free Phosphorus in Medicine, with Special Reference to Neuralgia*. 7s. 6d.

##### *Science.*

Beckett (Sir Edmund), *Astronomy without Mathematics*. 5th ed. 4s.

Bullock, *Smaller Class-book of Modern Science*. 1s. 6d.

Clowes (Frank), *An Elementary Treatise on Practical Chemistry and Qualitative Inorganic Analysis, adapted for use in the Laboratories of Schools*. 7s. 6d.

Forbes (George), *The Transit of Venus. (Nature Series)*. 3s. 6d.

Marey (E. J.), *Animal Mechanism: A Treatise on Terrestrial and Aërial Locomotion, with 117 Illustrations*. 5s.

Rutley (Frank), *Mineralogy. (Murby's "Science and Art Department" Series of Text Books.)* 1s. 6d.

Tyndall (John), *Addresses Delivered before the British Association assembled at Belfast. With Additions*. 8vo. 3s.

Watts (Rev. Professor), *Atomism. Dr. Tyndall's Atomic Theory of the Universe examined and refuted*. 2nd ed. 4d.

#### Medical Society of the College of Physicians, Ireland.

THE general meeting of the Society was held in the College of Physicians on Wednesday last, the business in hand being the election of Council.

The names of the outgoing Council and six new candidates were submitted, as follows:—

Those marked \* were elected.

1. Atthill, Lombe, M.D., F.C.P.

\* 2. Benson, J. Hawtrey, M.D., F.C.P.

\* 3. Fitzpatrick, Thomas, M.D., Hy. F.C.P.

\* 4. Foot, A. W., M.D., F.C.P.

5. Gordon, Samuel, M.B., F.C.P.

\* 6. Grimshaw, T. W., M.D., F.C.P.

\* 7. Hayden, Thomas, F.C.P.

8. Johnston, George, M.D., F.C.P.

9. Kennedy, Henry, M.B., V.P.C.P.

\* 10. Little, James, M.D., F.C.P.

11. M'Clintock, Alfred H., M.D., L.C.P.

\* 12. Moore, J. W., M.D., F.C.P.

Cryan, Robert, F.C.P.

\* Finny, J. M., M.D., F.C.P.

MacSwiney, S.M., M.D., L.C.P.

\* Nixon, C. J., L.C.P.

\* Purser, John M., M.D., L.C.P.

\* Yeo, G. F., M.D., L.C.P.

#### Injection of Chloral into the Veins and Cellular Tissue.

M. COLIN has given in the results of a variety of experiments by the injection of chloral solution on goats, cats, rats, and rabbits. He summarises thus:—

1st. The injection into the veins and into the cellular tissues are equivalent.

2nd. Feeble solutions must be employed and the doses be carefully regulated.

3rd. Injection into the veins must be done very slowly and carefully.

4th. All veins near articulations must be avoided.

#### A Homœopathic Definition of a Drug.

It is not often that we can get out of the homœopathic writer anything in the way of an exact definition or any axiomatic statement of the views of his own craft, and we ought to be grateful when we are afforded any information which we can accept without doubt. The author of a recent American book on "The Science of Homœopathy" discusses with great apparent profundity the peculiar tenets of his speciality, which he honours with the name of science, and he wraps the hypotheses of that intangible art in such a cloud of incomprehensibilities that really the book reads as if the author was writing of something very



deep, and was profoundly versed in abstract science. He defines, for instance, a drug in the following phrase :—

"I hold that a drug, as a material substratum characterised by definite, individualising properties, is the product of the co-operation of two factors, the active, male, or inseminating life principle of the Cosmos and the telluric or passive female germ."

Whether or not the idea which the author desires to express is correct we cannot attempt to say ; but we only wish that we could give homœopathy credit for being "a material substratum characterised by definite properties."

### The Fish of Paradise.

A CHINESE fish, which is remarkable for its splendid tints, has been given this fanciful name ; its scales have all the colours of the rainbow, with vertical bands of yellow, red, and blue, and marked from head to tail with rays of changing colours ; the caudal fin is very large, and opens like a fan, resembling a peacock's tail ; the habits are peculiar. At the time of depositing the eggs the male makes a floating raft, furnished with air-balls, and made of a greasy substance which is secreted by the buccal membrane, and the eggs are deposited under cover of this raft during the incubation, which lasts three days. It never ceases replacing any injured or absorbed air-cells, and places these new cells ingeniously under the eggs, so forcing them upwards, and thus the upper part of the cell becomes dried, and it is through this the young escape. The male takes the greatest care of the young, and about 500 eggs are produced.

AN Odessa paper announces that the rinderpest is raging in Sebastopol and the neighbourhood, and that cattle are falling down dead in the streets.

THE Newcastle-on-Tyne Infirmary is to receive £25,000, and the Newcastle Dispensary £10,000, by the will of the late Mr. Hutchinson of that town. What will they do with it ?

DURING the past month 2,305 deaths were registered in the eight principal towns of Scotland, over thirty-two per cent. of which were caused by the zymotic class of diseases. Scarletina continues the most fatal of the epidemics, and is increasing.

THE subject of competition for the Hastings Gold Medal, value twenty guineas, offered annually by the British Medical Association, is announced for 1875 as "The Treatment of Aneurism," and the award will be made at the annual meeting of the Association in that year.

ANOTHER prosecution for defrauding an Irish Poor-law union by adulteration of milk occurred last week at Galway. From the evidence of Dr. Cameron, the county analyst, it appeared that the milk was watered to the extent of 60 per cent., and the magistrates, taking a strong view of the offence, unanimously convicted the defendants, and fined them £20 each, the highest penalty, together with 9 guineas costs.

### Election of Visitors of Examinations.

WE understand that within the last week the Branch Medical Councils for Ireland and Scotland have forwarded to the Executive Committee of the Medical Council the names of those gentlemen who have been recommended by the various medical authorities for the selection of the Executive Committee, to perform the duty of visiting the twelve licensing bodies whose examinations are to be inspected this year.

We announced last week that the Secretary of the Irish Branch Council had addressed to the governing bodies of the Irish medical authorities a letter requesting them to furnish the Branch Council with the names of those who were willing to act in that capacity. In accordance with that request, the names of the following gentlemen have been forwarded to the Irish Branch Council, and by them transmitted to the Executive Committee. From the College of Surgeons—Mr. Morgan, Dr. Mapother, Mr. Stokes, Dr. Corley, Dr. Croly, and Dr. Burton. From the College of Physicians—Drs. Lyons, Little, Foot, Hayden, Beatty, and McSwiney. From the University of Dublin—Dr. McDowel, Mr. Bennett, and Dr. Purser. From the Apothecaries' Hall—Drs. Charles Moore, O'Neil, Montgomery, and Collins. We hear that the Queen's University Senate, maintaining its attitude of hostility to the Medical Council and its recommendations, peremptorily refused to recommend anyone.

We think the governing bodies of some of the licensing bodies have gone beyond their authority in recommending any individuals when they were requested simply "to ascertain what members of 'their' body would be willing to undertake such duty and to furnish 'the Branch Council' with their names and qualifications ;" but we believe that, in so doing, they have taken a wiser course than that indicated by the Branch Council, and have, on the whole, made an excellent selection. The choice of visitors in this open and straightforward way will confer additional credit upon the verdicts which they may pronounce, and will confirm the good impression which the honesty of their judgments last year has created.

SEVERAL rather severe losses of cattle have lately been sustained by occupiers of low, marshy, undrained lands in different parts of Ireland, from vegetable poisoning. One outbreak of the kind has recently been successfully investigated in county Galway. It was distinctly proved that the cause of death was the poisonous effects of *Colchicum autumnale*, a plant peculiar to the lands above described. Twenty-three animals belonging to six or seven small tenants have succumbed.

WE are gratified to learn from the *Philadelphia Medical Times* that Dr. Buchanan, the sham diploma swindler of the so-called Philadelphia University, was arrested on September 16th, whilst on his way to the Eclectic College, on the charge of having caused the death of a Mrs. Isaac W. Vandegrift by an improper surgical operation. We must be thankful for any chance which rids society of such a harpy, and we venture to hope for him a long relief from

his infamous trade, and a favourable opportunity of mastering the mysteries of oakum-picking.

THE 102nd Session of the Medical Society of London commenced on last Monday, when the President, Victor de Meric, Esq., F.R.C.S., delivered an inaugural address, and also read a paper on "Ricord and his School." Dr. Theodore Williams related "Notes of a Case of Ulcer of the Stomach successfully treated by Nutritive Injections." For the Fothergillian Gold Medal, value twenty guineas, offered annually by the Society, the subject selected for competition in March, 1875, is "The Diseases of the Testicle and the Spermatic Cord;" for March, 1876, "On Cataract and its Treatment."

DR. MITCHINSON, coroner, presided last week at Welton, near Lincoln, at an inquest on the body of a labourer, found in a neighbouring field under suspicious circumstances. There was no evidence of violence, or other satisfactory cause of death, but in summing up the coroner suggested that heart disease might be the cause, or that deceased might have been seized with a certain spasm. Hypotheses are all very well in their way, but we think Dr. Mitchinson would have more faithfully performed his office had he ordered a post-mortem, and thus have obtained from medical evidence a satisfactory solution to the problem.

WHEN the Recorder of Dublin sat on Saturday to dispose of the business of the Licensing Sessions, Mrs. Edmundson, one of a deputation of ladies, handed in a memorial from the women in Dublin, pointing out the growing evils of intemperance in the metropolis, and praying the Recorder not to grant extensions of licences, but to do all he could to limit the number of public-houses. The Recorder replied that his private views agreed with those of the deputation, but he had to act on fixed principles. He granted no new licences, but allowed reasonable improvements to be effected in licensed houses. During this time the number of licences had been reduced from 1,200 to 800 in the city.

#### ARTHUR JACOB, M.D.

(From the *British Medical Journal*.)

By the death of Dr. Arthur Jacob, which took place on September 21st, at the residence of his son, at Barrow-in-Furness, at the patriarchal age of 85, the medical profession has lost one of its most remarkable men, and the Irish School of Surgery of the past generation one of its most brilliant lights and most respected members. From the year 1819, when, at the early age of 28, Dr. Jacob raised himself, by his discovery of the *membrana Jacobi*, to the highest rank among the anatomists of his day, until a few years since, when he retired from his public offices and professional duties with all the honour which his brethren could confer upon him, he never ceased to occupy a prominent position among the Irish representatives of medical science; and his connection with the Royal College of Surgeons in Ireland as a Councillor and as its Professor of Anatomy and Physiology is sufficiently recent to have left in the minds of his compatriots fresh memories of his great energy, unquestioned talent, and unsullied integrity.

Dr. Jacob, was the son, grandson, and brother of successive members of a family of surgeons who occupied the highest social and professional position in the Queen's County. His father was for many years surgeon to the chief infirmary in that district, and the youth of Arthur Jacob may be said to have been spent in the atmosphere of his profession. Leaving home in 1807, he became the pupil of Abraham Collis at Steevens' Hospital; and, after an apprenticeship of seven years, he graduated as M.D. in Edinburgh in 1814. After continued study in London and Paris, in the former metropolis under Sir Astley Cooper and Sir Benjamin Brodie, he returned to Dublin, and, having the surgical diploma of his own College, was chosen by Macartney, who was then Professor of Anatomy in the University, to be his demonstrator. In this position he acquired the character as an anatomical investigator, which he carried with him until the last years of his life. The fruits of much of his anatomical labour at this time found a place in the museum which Macartney sold to the University of Cambridge, and the remains of which are still there. Ceasing to be connected with the University, Dr. Jacob entered into conjunction with Graves, Marsh, Cusack, and Hart, and founded the Park Street School, which, though only continued for a few years, left behind it a name of which all its pupils are, to this day, justly proud. From this school, in 1826, Dr. Jacob was chosen Professor of Anatomy and Physiology in the Royal College of Surgeons in Ireland, where his fame followed him, and attracted to the school crowds of eager students and admiring listeners. From that day until 1869 he assumed and sustained the position of the leading mind, both in the educational working of its school and in its administration. With a constancy which was unshaken, a determination which knew no obstacle, and an integrity of purpose which justified all his acts, he devoted himself to the interests of the College, and left upon its policy for a quarter of a century the impress of his vigorous mind.

In the inception and consummation of the Poor-law and medical charities and the lunacy systems of Ireland, and in the successive attempts at medical reform which were brought before Parliament during that period, Dr. Jacob was a leading actor, always as the champion of the interests of his medical brethren and the protector of the integrity of his College; and, while the energy of his proceedings and the incisiveness of his speech necessarily clashed with the feelings of those who were opposed to him in opinion, there remains at this day but one sentiment—that of admiration for his talents and respect for his fidelity to his College. This latter and most engrossing characteristic of Dr. Jacob manifested itself peculiarly in the manner of his retirement from his Professorship and from his public life. Although he had continued to discharge his professional duties up to a few weeks before his final resignation with almost unabated vigour, and might reasonably have hoped to retain the emoluments of the chair for many years if he could be satisfied to occupy so important a position in consciousness than incapacity to do it justice was coming upon him, yet he no sooner felt the inevitable effects of age upon his mental and physical powers, than he at once retired from an office the duties of which he felt he could no longer fulfil with honour to himself or advantage to the school. Shrinking from the demonstration of friendly regret which he felt would be forced upon him if he were to make a regular public exit, he departed from Ireland, leaving behind him the scene of his well-loved labours and the sympathetic expressions of his colleagues and friends. The College, however, which had thrice elected him their President, refused to be thus prevented from expressing its regard for the man and gratitude for his services. A warmly phrased vote of thanks, an order for the execution

of his portrait, and a vote of one hundred guineas for the purchase of a testimonial gift, recorded the unanimous feeling of the Council; and the universal sorrow of the profession at his death gives witness that these kind feelings have not lost their force during the years which have since elapsed.

Of Arthur Jacob the worst which can be said is that those objects which were nearest his heart he loved "not wisely but too well." On more than one occasion the strength of his feeling and the vigour with which he went forward to his object gave him the appearance of intolerance in opinion and excessive zeal in action, and his unhesitating candour made for him antagonists whom a more cautious and disingenuous diplomatist would have conciliated.

## Medical News.

**Royal College of Surgeons of England.**—At the quarterly meeting of the Council, on the 15th inst., the Council considered a communication from the late Dr. Anstie, dean of a School for the Education of Ladies for the Medical Profession, requesting to know, amongst other matters, whether a list of gentlemen proposed for teachers would meet with their approval. The Council decided—That whilst they take no objection to the list of names submitted to them in the letter of the late Dr. Anstie as teachers in the proposed school, they are not prepared to imply a readiness to recognise a school which is incomplete, and respecting which they have so little information. It was resolved, on the motion of Mr. Simon—That it be an instruction to the Committee on Bye-laws to prepare for consideration of the Council a formula for a new bye-law under section 18 to define the privileges of the fellows and members respectively to hold meetings within the College, and to arrange the necessary provisions for holding such meetings. Other motions by Mr. Erichsen, Mr. Henry Lee, Mr. Gay, and Sir James Paget were deferred to a future meeting.

**The Drainage of Brighton.**—In reply to a recent article in the *Lancet* on this subject, Dr. Kebbell, medical officer of health for the Hove district, says, in reference to the ventilation of sewers: "I am very much mistaken if you will not find it the almost universal opinion of all who have paid any attention to the subject that the gases which escape from the open ventilators, when they are sufficiently numerous, and the sewers free from accumulations—which is the case with the Brighton intercepting sewer—though, doubtless unpleasant, are not injurious to health. Certainly, I have never either seen or heard of any cases of typhoid, or other fevers, which could be traced to this cause. The gases thus evolved are of recent origin, are freely mixed with atmospheric air while within the sewer, and are still further diluted and dispersed as they escape from the ventilators." He further thinks that the smell near the western outfall proceeds from the "lingering remains of filth of past years," very likely mixed up with decaying seaweed, which time alone will remedy, which was wrongly attributed by the people in the neighbourhood to the sewer ventilators. Still, with all due deference to Dr. Kebbell's explanations, we are disposed to believe that the new drainage scheme in this town is very defective, as we have it upon the authority of a correspondent who is in a position to know the real state of affairs that several cases of typhoid fever have recently occurred which can be attributed to no other cause than this.

**Scholarships at St. Mary's Hospital.**—St. Mary's Hospital offers several entrance prizes to students who select that institution for their education. These prizes are given by competitive examination at the beginning of the session. This October they have been awarded as follows: The scholarship in natural science to Mr. W. Pearce; the exhibition in natural science to Mr. F. A. Cox; the extra scholarship in natural science to Mr. C. M. Handfield Jones; the scholarship in classics and mathematics to Mr. H. N. Seager; the exhibition in classics and mathematics to Mr. C. M. Handfield Jones. The examiners were Dr. Cobbold, F.R.S., C. W. Heaton Esq., and the Rev. Dr. West, Head Master of Epsom College.

**University of Edinburgh.**—At a meeting of the University Court, on October 12th, an order of Her Majesty in Council was laid before the court, permitting Dr. J. Hughes Bennett to retire, on a retiring allowance, from the Professorship of Institutes of Medicine. Dr. William Robertson's resignation of the office of Examiner in Medicine was submitted. Dr. William M'Intosh, of Murthly, was appointed Examiner in Medicine, under the existing regulations, from the date of Dr. Robertson's resignation till the end of the present year. Dr. William Stirling has been appointed assistant to Dr. Rutherford, the newly elected Professor of Physiology. Examiners in the Public Health Department have been appointed. A Committee has been formed in London for the purpose of presenting a bust of Dr. Hughes Bennett to the University.

## NOTICES TO CORRESPONDENTS.

CORRESPONDENTS requiring a reply in this column are particularly requested to make use of a *distinctive signature or initials*, and avoid the practice of signing themselves "Reader," "Subscriber," "Old Subscriber," &c. Much confusion will be spared by attention to this rule.

Dr. E. BELLIS is thanked for his note.

ON Friday evening the Quekett Microscopical Club will hold its first sessional meeting, at 8 p.m. Mr. R. P. Williams will read a paper "On Cutting Sections of the Eyes of Insects, and on a New Instrument for that purpose."

CLINICAL SOCIETY OF LONDON.—Opening meeting on Friday evening, at 8½ p.m. Mr. Carter, "On a Case of Vertigo, simulating Brain Disease, from Fatigue of Internal Rectus Muscle of Eye."—Dr. Southey, "On a Case of Scirrhus Cancer of Pylorus, with Encephaloid Infiltration of Left Lung and Supra-renal Capsules."

Dr. J. C. B.—Rather long. We will try to find room in our next.

Dr. A. G. B.—Received and handed to the gentleman referred to.

Dr. KIRBY.—The work was noticed in our issue of September 9th.

Dr. M., Torquay.—Thanks. A note has been made of the change.

Mr. P. S.—Had not been received at the time of our going to press.

TRAVELLING CONSULTANTS.—The followers of Aristotle are said to have been called peripatetics because they used to teach their science walking about. That science has received a new illustration during the past week or two, in London, in the august person of Prof. Lilley, who, with his wife, is "starring" the metropolis with several gaudily-painted caravans, one being his *domos*, another his surgery, another his consulting-room, in which the public is invited to enter for consultation with Dr. and Madam Lilley, of world-wide celebrity in the immediate cure of rheumatism, gout, &c. Prof. Lilley doesn't take permanent consulting-rooms, as he remits their cost to his patients by asking smaller fees.

COMMUNICATIONS, Enclosures, &c., have been received from Dr. Pavy, London. Mr. W. Adams, London. Dr. Lytleton Winslow, London. Dr. Déclat, Paris. Dr. Alexander Burness, London. Dr. Hansel Griffiths, Dublin. Mr. Blyth, London. Mr. Poole, London. Dr. Edgar, St. Louis. Mr. Squire, London. Dr. Hughlings Jackson, London. Mr. Lunn, Edgbaston. Dr. Ormsby, Dublin. Surgeon-Major F. R. Hog, Simla, India. Surgeon-General Gordon, C.B. Dr. Meymott Tidy, London. Dr. J. Drysdale, Liverpool. Dr. Berry, Wigan. Dr. E. C. Thompson, Omagh. Dr. E. Bellis, Much Woolton. Dr. Muter, Kennington. Mr. King, London. Dr. Crichton Browne, West Riding Asylum. Dr. Bradbury, Cambridge. Mr. W. J. Cox, Chipping Sodbury. Dr. O'Flynn, Drumshambo. Dr. Johnson, Kilkenny. Dr. Woodhouse, Westport. Dr. Mayberry, Kenmare. Dr. McNamara, Torquay. Dr. Barry, Lismore. Dr. Blennerhasset, Coolany. Dr. Cornelius, Mountrath. Dr. Crawford, Tandragee. Dr. Taaffe, Dublin. Dr. Wills, Bootle. Dr. Barker, Dublin. Dr. Beckett, Moneymore. Dr. O'Connell, Kilmallock. Dr. Bourns, Killala. Dr. Copeland, Florence Court. Dr. Bodkin, Arran Island. Dr. Kirby, London. Dr. Mason, Dublin. Dr. Forsyth, Culmore, Derry. Dr. Hyslop, Church Stretton, &c., &c.

## BOOKS, PAMPHLETS, AND MEDICAL JOURNALS RECEIVED.

Osteology for Students, in 2 vols., Atlas and Text. Second Edition. By Arthur Trehern Norton, F.R.C.S. London: Baillière, Tindall, and Cox.

The Protoplasmic Theory of Life. By John Drysdale, M.D. London: Baillière, Tindall, and Cox.

On Functional Derangements of the Liver. By Charles Murchison, M.D., F.R.S. London: Smith, Elder, and Co.

Autobiography of A. B. Granville, M.D., F.R.S., in 2 vols. By his Daughter. London: King and Co.

Arædian Walks and Drives round London. By W. A. Johnson, M.D. London: Ward, Lock, and Tyler.

Compendium der Neueren Medizinischen Wissenschaften. Von Dr. Bernard Kraus. Vienna.

Handbook of Therapeutics. Fourth Edition. By Sydney Ringer, M.D. London: H. K. Lewis.

The Practitioner. El Anfiteatro Anatomico Espanol. Indian Medical Gazette. Boston Medical Journal. Philadelphia Medical Reporter. Allgemeine Wiener Medizinische Zeitung. Echo de la Presse Médicale.

## VACANCIES.

St. George's, Hanover Square, Dispensary. Resident Medical Officer. Salary, £150 per annum, with residence. Candidates must send copies of testimonials with their applications to the Secretary, Mr. Leash, 73 Park Street, London, W. (See Advt.)

Royal Free Hospital, London. Junior House Surgeon, for a term of six months. Board and residence provided. (See Advt.)

City of London Hospital for Diseases of the Chest. Resident Medical Officer. Applications to be addressed to the Secretary. (See Advt.)

Manchester Royal Lunatic Asylum. Assistant Medical Officer. Salary commencing at £120, with board and residence. Apply to the Resident Medical Superintendent, Cheadle.

North Staffs Infirmary, Harts-hill. Junior Resident Medical Officer, wife to act as superintendent of nurses. Commencing salary at £250. Board, &c., provided. Applications to the Secretary.

Bridgnorth Infirmary. House Surgeon. Salary, £100. Testimonials to be forwarded to the Hon. Sec.

Jersey General Dispensary. Resident Visiting and Dispensing Medical Officer. Salary, £120 per annum. Apply to the Rev. F. Le Feuvre, Jersey.

Carmarthen Infirmary. Resident Medical Officer. Salary, £100 per annum, with board and lodgings. Address Mr. Howells, King Street, Carmarthen.

Kent Lunatic Asylum. Medical Superintendent. Salary, £600 per annum, with unfurnished house, &c. Address the Clerk, 43 St. Margaret Street, Canterbury.

Kent Hospital. House Surgeon. Salary, £50, with board and lodgings. Applications to the Secretary at the Hospital, Canterbury.

Birmingham Free Hospital for Sick Children. Surgeon on the Staff. Honorary.

Central London Ophthalmic Hospital. Assistant Surgeon. Honorary. Belgrave Hospital for Children, S.W. Physician. Honorary.

## APPOINTMENTS.

ARMSTRONG, G. W. F., M.D., C.M., Medical Officer, &c., for the Castle-town Dispensary District of the Castletown Union, co. Cork.

FRASER, A. D., M.B., C.M., Medical Officer of Health for the Castle Ward Rural Sanitary District, Northumberland.

GARD, W. J., M.R.C.S.E., Junior Surgeon to the Royal Albert Hospital, Devonport.

HAMPTON, G. A., M.R.C.S.E., Resident Medical Officer to the Lambeth Infirmary, Prince's Road.

KERR, E. W., M.B., C.M., Medical Officer for the Kinlough Dispensary District of the Ballyshannon Union, co. Donegal.

KERR, N. S., M.D., C.M., Medical Officer for the Christchurch District of the Parish of St. Marylebone.

M'KENNICK, J. G., M.D., C.M., F.R.C.P. Ed., F.R.S. Ed., Professor of Physiology at the Edinburgh Royal Veterinary College.

POUNCEY, W. E., M.B., C.M., an Assistant Medical Officer at the Union Infirmary, New Bridge Street, Manchester.

RITCHIE, A., M.D., Parochial Medical Officer and Sanitary Medical Officer for Cathcart, Renfrewshire.

SCOTT, H. M., L.R.C.S.I., L.K.Q.C.P.I., Admiralty Surgeon for Achill, co. Mayo.

SMITH, H. B. L., M.B., C.M., M.R.C.S.E., House Surgeon to the Dorset County Hospital, Dorchester.

SMYTH, F. H., M.D., Extraordinary Physician to the Cork Fever Hospital.

STEVENS, F. G., M.R.C.S.E., Physician's Assistant at the General Hospital, Bristol.

SWAIN, E., M.R.C.S.E., L.R.C.P. Ed., Medical Superintendent of the Three Counties Asylum at Arlesey.

TURNER, R., M.D., Resident Medical Officer to the Infirmary and Dispensary, Newport, Monmouthshire.

WADDILL, J. C., M.D., an Honorary Medical Officer to the County Dispensary, Norwich.

WELSH, J., M.D., L.R.C.S.I., Medical Officer for the Ballyshannon Dispensary District of the Ballyshannon Union, co. Donegal.

WILLS, THOMAS, M., F.R.C.S.I., L.K.Q.C.P., &c., Honorary Surgeon to the Bootle Borough Hospital.

## Marriages.

BADCOCK-GRIFFITHS.—On the 6th inst., at the parish church, Upper Standon, Beds, John Henry Badcock, M.R.C.S.E., to Rebecca Elizabeth, only daughter of Thomas Griffiths, of Stanwell Moor, Staines.

BARNES-SNELL.—On the 15th inst., at St. Mary's, Stoke Newington, Edgar G. Barnes, M.D. Lond., of Eye, Suffolk, to Emma Elizabeth, third daughter of the late James P. Snell, of Holloway.

HOPKINS-BOWIE.—On the 15th inst., at St. George's, Campden Hill, W., Thomas Fay Hopcroft, M.R.C.S.E., to Elizabeth Thurburn, daughter of the late William Bowie, Esq., of Edinburgh.

REYNOLDS-NOTT.—On the 14th inst., at St. Mark's, Kennington, John Reynolds, L.R.C.P., M.R.C.S., to Caroline Harriet, daughter of William Francis Nott, M.R.C.S., of Kennington Park, Surrey.

## Deaths.

BLAKE.—On the 13th October, at Lorne Villa, Downend, near Bristol (late of Taunton), James Dore Blake, M.D., aged 69.

SMALE.—On the 7th October, G. E. Smale, M.R.C.S.E., of Wellington Road, St. John's Wood, aged 45.

VESEY.—On the 8th October, J. Stewart Vesey, M.D., of Belle Vue, Magherafelt, aged 59.

WILSON.—On the 8th October, Frederick Wm. Wilson, M.R.C.S.E., of Forest Hall, Long-Benton, Northumberland, aged 80.

## Advertisements.

**MEDICAL.—WANTED, an ASSISTANT to the APOTHECARY PROFESSION of two or three years' standing, who understands the Compounding and Dispensing of Physician's Prescriptions.—Apply to ALEX. BRIN, Arinagh.**

**IRISH PRACTICE.—A Medical Gentleman can be secured in an easily worked Practice, realising at present £300 a year, but which can be immediately doubled. Good house, office, &c., at low rent. Satisfactory reasons for present incumbent leaving. Terms moderate.—Apply MEDICUS, 23 Ely Place, Dublin.**

**ST. GEORGE'S, HANOVER SQUARE, DISPENSARY, 59 MOUNT STREET, GROSVENOR SQUARE.—The office of RESIDENT MEDICAL OFFICER is vacant. Salary, £150 per annum, with residence. Candidates are requested to send in their applications, accompanied with testimonials, to the Secretary, Mr. G. H. LEASH, Jun., 73 Park Street, W., on or before SATURDAY, OCTOBER 21st, who will give all information required as to the position and duties. Every candidate must be a Member of the Royal College of Surgeons and a Licentiate of the Apothecaries' Company.**

**ROYAL FREE HOSPITAL, GRAY'S INN ROAD.—There is a vacancy for a JUNIOR HOUSE-SURGEON to this Hospital. Candidates, who must be Graduates in Medicine of one of the Universities, or Members or Licentiates of one of the Colleges of Surgeons of the United Kingdom, and registered under the Medical Act, are requested to send in their testimonials to the Secretary on or before WEDNESDAY, 28th OCTOBER. The appointment will be made for six months only, but the holder will be eligible for re-election. Board and residence are provided in the Hospital. JAMES S. BLYTH, Secretary.**

**CITY OF LONDON HOSPITAL for DISEASES of the CHEST, VICTORIA PARK.—The appointment of RESIDENT MEDICAL OFFICER is now vacant. Applications, accompanied with testimonials, to be addressed to the Secretary, at the office, 24 Finsbury Circus, on or before MONDAY, the 26th inst. WILLIAM JONES, Secretary.**

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# The Medical Press & Circular.

"SALUS POPULI SUPREMA LEX."

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## Original Communications.

### CHOLERA: ITS *ÆTIOLOGY*, CONTAGIOUSNESS, AND TREATMENT.

By WM. BOYD MUSHET, M.B. Lond., M.R.C.P.,  
Late Physician to the North London Hospital for Consumption, formerly  
Resident Physician at St. Marylebone Infirmary.

#### *ÆTIOLOGY.*

OF the intimate cause and essential nature of cholera we are yet ignorant; nor does clinical or post-mortem observation appear to render its pathology more definite or satisfactory.

We observe a train of phenomena varying in character and intensity in particular cases; but the study of symptoms during life does not enlighten us as to the seat of the disease, or aid us in the establishment of rational principles of treatment. In fatal cases we discern no anatomical lesion, and beyond more or less marked pulmonary collapse and venous congestion, there is exhibited no appreciable alteration of the viscera. The flocculent ingredient giving rise to the characteristic rice-water, or "congee" evacuations, which has been supposed to contain some entity having an influence on the causation of cholera, was long since pointed out by M. Boëhm, of Berlin, to be merely the rapidly shed epithelium of the alimentary canal, and Dr. Hassall's minute microscopical examination of the blood, urine, epidermis, and clothes of patients failed to detect anything unusual. In like manner, the fungi and vibriones detected in the atmosphere, air passages, alimentary tube and discharges, have been also found in the larynx and contents of the intestines of healthy persons by Dr. Hassall, Mr. Rainey, and other investigators.

But many other diseases are characterised by like obscurity of origin, like negation of evidence on autopsy, though they have not demanded so much attention, owing to the infrequency of their occurrence, or to their being less deadly, or less rapidly fatal in progress. The stomach and intestines, liver, spleen, and other viscera

have been respectively considered to be most implicated or concerned in the evolution of the disease, the organ in question being conceived to undergo some vital or functional perversion in consequence of the action of a specific *materies morbi*. Many, as Mr. Grove, have ascribed this to spores or animalcules suspended in the atmosphere, or drinking-water, and Dr. Sansom has revived the opinion, as he holds that the cholera germ is *organised*; and that it *lives and grows and multiplies*. Mr. Grove maintained "that to some form of life (most probably vegetable) the principle of epidemic and infectious diseases is to be referred; that the predominant or governing influence is due to reproduction, and that it is during the exercise of the reproductive faculty of the poison germs that the phenomena of acute disease are manifested." Still more recently Dr. Déclat and other French physicians strongly support the "fungoid" theory; but, although this doctrine is attractive and plausible, it presents numerous fallacies, and is altogether undemonstrable, as I have already noticed. Others assign the disease to volcanic or electrical conditions, and deduce scientific inferences from the state of the atmosphere, which prove on analysis to be merely circumlocutory avowals of ignorance, though the meteorological observations of Mr. Glaisher—an epitome of which will be hereafter given—are of interest, as they hold out a hope, in the future, of throwing a light on the origin of the epidemic. Again, the disease has been deemed by some to be dependent upon malarious or miasmatic agency, to which the spleen is considered to be specially obnoxious. In support of this the spleen may undergo some functional change in cholera, as the blood presents considerable alterations (such as increase of its corpuscles and viscosity, and diminished and diffuent condition of its fibrin), over which fluid this organ is regarded to possess great and peculiar influence. According to Mr. Gray, the spleen regulates the *quantity* and *quality* of the blood; but after extirpation, which does not inconvenience the animal, the increase of blood is equally distributed over the whole system, so that the vessels contain more than under ordinary circumstances. Of course, the viscosity of the blood is mainly due to separation of its watery

constituents; but may not this viscosity be dependent (it is asked) on perverted action of the spleen failing to maintain hæmostatic equilibrium, and consequently favouring elimination of the thinner portions of the blood by the alimentary canal? If this theory be accepted, the analogy may be carried further, and cholera be regarded as a species of intermittent (Dr. Billing), the cold fit of which becomes developed, but it is not succeeded by the hot stage, in consequence of the concentrated or more subtle action of the malarious poison. The secondary fever, however, if collapse be recovered from, may be viewed as the analogue of the hot stage. Ague districts are said to be not particularly liable to visitations of cholera, though, if visited, the disease has been reported to rage with peculiar virulence; but such facts do not militate against the theory, as the diseases are presumed to be similar, not identical, in their mode of generation. But it is impossible to reconcile what has been observed relative to the origin and propagation of cholera with such a theory; there is complete absence of evidence in its favour; and lastly, the splenic derangement which is the effect of intermittents cannot be fairly, according to such a method of reasoning, considered, if it exist, as the cause of cholera.

Numerous authors maintain that the disease is *always* traceable to impurities in the water of the district; but this fails to explain its appearance or production under circumstances where the water has been avoided, or found free from noxious ingredients, and although there is great truth, there is probably not the whole truth in this view, as water only proves a source of cholera under certain conditions, which will be more fully alluded to. Even Dr. Snow, the great advocate of this theory, was unable to explain all circumstances connected with the visitation by the aid of the water theory alone; yet it must be admitted that in several instances, as during the memorable outbreak near Golden Square, in 1854, and in East London in 1866, the introduction of impure water into the system was almost mathematically demonstrated to be the chief, if not the sole agency in the development of the disease. Very many other examples might be quoted in proof of the connection between impure water and the prevalence of cholera, and there is also truth, if not the whole truth, in the remark of the late Dr. Dundas Thomson, "that where cholera was most fatal in the metropolis the water supply was most impure." Nevertheless, concerning the water supply in relation to cholera, I hold the summary derived from evidence furnished to the General Board of Health in 1854 to be equally true—viz., "that there is no sufficient proof that impure water acts specifically in generating cholera, or, in other words, that it is the specific cause of the disease." This conclusion should carry great weight, when it is borne in mind that Drs. Hassall, Dundas Thomson, and other competent men were specially engaged in the investigation, and that Dr. Hassall concludes "that microscopical examination of the different waters obtained from houses visited by cholera—though denoting impurity as a characteristic feature—throws no special or direct light upon the production of the epidemic." To revert to earlier writers, Dr. Roupell, in his Croonian Lectures for 1833, regards "the primary cause of cholera to be an affection of the nervous system, and that the immediate result of this is an irritability of the lymphatic portion of the vascular system, occasioning increased fluid discharges." He thought the discharges in cholera are similar to the contents of the lymphatic vessels, and that a local impression on the nervous centres of the abdomen which supply the viscera produce the symptoms of collapse without impairment of intellect, cold sweats, pulselessness, &c. Such a view was originally entertained by many Indian practitioners nearly half a century since, and Mr. Sedgwick likewise labours to prove that cholera is the result of functional disorder of the sympathetic nervous system, excited through the medium of the alimentary canal, chiefly of the stomach. Dr. Sansom also affirms that cholera is due to *irritation*, not *paralysis*, of the abdominal sympathetic.

Dr. Parkes, however, says, the leading idea he has formed of the nature of cholera is not only that it is primarily a disease of the blood, as has been generally surmised, but that the changes induced in the function of respiration directly consequent on the alteration of the blood are the proper and distinctive symptoms of the disease. The alterations of the pulmonary functions, therefore, enter into his definition of true cholera, and for the purpose of expressing this decisively he has ventured to employ the term "*algide cholera*" as a synonym for "*cholera gravior*" of Orton and others. He thinks the cause of cholera to be a septic agent, or *materies morbi*, rather than a result of atmospheric changes.

Dr. Snow thought the disease due to some sort of structure, most likely a cell, though not to be recognised microscopically, any more than that of variola. He also held that the poison must be swallowed, or introduced into the alimentary canal, most frequently from water. Notwithstanding these views, he thought if the blood were poisoned the disease would be ushered in by febrile or other general symptoms. The diminished volume and thickened state of the blood accounted in his mind satisfactorily for all the symptoms of cholera, and he thought the blood was not poisoned, except in cases of consecutive fever. He adduced the fact of temporary restoration of the patient by diluting the blood with a weak saline solution as an additional proof that the circulating fluid is not poisoned in collapse.

Not to enlarge too much on this part of the subject, I will merely quote Mr. Headland (*Lancet*) in evidence of the contrariety of views entertained by different members of the profession. This gentleman thinks cholera is a blood disease, probably an affection of the corpuscles, as animal heat, &c., is impaired, which function physiologists attribute to the corpuscles; and, again, collapse may occur (he says) before thickening of the blood occurs from exudation of the liquor sanguinis. He is a non-contagionist, but thinks there is no connection between cholera and diarrhoea.

The most reasonable presumption appears to me to be that cholera is dependent on a septic animal poison, which is similar to the view held by the late Mr. Herra-path, of Bristol. I do not conceive it essential that this poison be organised, or a specific cell, as odorous matters, such as musk, snuff, &c., though in a high state of volatility, are neither gaseous, fungoid, nor animalcular, and yet they are decidedly capable of exerting physiological effects. It is a commonly received opinion amongst Continental physicians that *ochleris* and want of cleanliness will produce the disease—circumstances most favourable to the production and evolution of decomposing animal matters. Again, experience demonstrates that cholera appears in greatest virulence in localities where there exist cesspools, gullies, drains, foul sewers, poisoned water supply, and putrefactive exhalations. It is highly probable that emanations from these sources enter the system through the alimentary (or pulmonary?) mucous membrane. The effect of such septic matters is to produce disturbance of the functions of the gastro-intestinal tract and other phenomena of cholera, varying in degree according to the intensity or peculiarity of the poison; for as each province or district has its own source of decomposing materials, we must admit, I think, a plurality of choleraic poisons; and observation tends to confirm such doctrine, as at the same period of the same epidemic the disease appears to be milder in certain localities and certain individuals, for which habit and constitution alone fail to account. Under this head I may call attention to the diarrhoea and intestinal derangements often witnessed amongst students exposed to the putrid atmosphere of the dissecting-room, and to the production of serious diarrhoea in irritable subjects after indulgence in high game and other partially decomposed food, of which healthy persons partake with impunity, and obviate the effects by the antiseptic properties of their gastric and intestinal juices.

The septic poison produces a modification in the functions of the alimentary tract, manifesting itself in diarrhoea.



and vomiting, the symptoms differing much according to the potency and speciality of the operating cause and the constitutional powers of the patient, as the poison will of course act more energetically on those subjected to exhaustion, privation, or excess. I believe, then, that the causes constantly exist, and are in operation, which may produce diarrhoeal symptoms, but why at particular intervals these symptoms should merge into cholera is at present a mere speculation, and may ever remain a mystery to man. The causes contributing to the production of cholera must have existed ever since mankind has been congregated in masses, although we have no authentic evidence of the appearance of the scourge until the present century. Mr. Curtis, surgeon in Sir Edward Hughes's squadron, in 1782, gives a graphic account of a disease which, according to Dr. Roupell, was undoubtedly cholera, and from the description there cannot be much doubt of the correctness of the opinion. It may be found in the Madras Reports. Most authors, however, date its appearance at Jessore in 1817, and at Sunderland, in England, in 1831; but, from the foregoing, such a chronology is incorrect; and many hold that the black death of the middle ages and various epidemics of plague may have been true cholera visitations.

**Meteorology.**—Mr. Glaisher, in his Report on the Meteorology of London (Report of the Committee for Scientific Inquiries in Relation to the Cholera Epidemic of 1854), states that during the prevalence of the disease there was undue height of the barometer, the temperature was above the average, and there was less range of temperature than usual; the atmosphere was calm, still, almost stagnant, thick and misty—thin in high places, dense in low. The rainfall was unusually small, there was deficiency of positive electricity, and the ozone was very deficient, almost undetectable in low districts. These conditions are favourable to the accumulation and concentration of poisonous matters in the atmosphere, and of course augment the potency of their action. They depend on physical causes as much beyond the control of man as the variation in weather, temperature, and season, and either constitute or intensify the "epidemic influence." In 1866 Mr. Glaisher noticed the meteorological characters were different from those of former cholera periods. Thus, between midsummer and the end of the quarter, the atmospheric pressure was remarkably low, and the temperature of the air also low, night and day, except in September, when the nights were warm. The daily range of temperature was small, and there was abundance of rain everywhere. The air was in almost constant motion, frequently blowing much heavier than usual. Nearly all the circumstances were directly opposite to those mentioned as being present on previous visitations. They probably aided in checking its wider extension. One of the most remarkable atmospheric phenomena was the prevalence of a peculiar blue mist, which was generally present, extending from Aberdeen to the Isle of Wight, of the same blue tint everywhere. This increased in intensity through the telescope and in density during the fall of rain. It did not decrease when the wind blew moderately, but did when a gale was blowing, increasing again on its subsidence. Mr. Glaisher does not know the nature of this mist, but it had not been noticed since the cholera period of 1854, which points to a possible connection. Dr. Leith Adams, however, disputes the relation between this blue mist and the epidemic, as he has observed it in almost every quarter of the globe when cholera was not known to exist within thousands of miles.

I assert that cholera must be regarded as diarrhoea maligna, or diarrhoea assuming a malignant type under certain almost unknown cosmical conditions, which can only be defined as "epidemic influence," "epidemic constitution," or, as M. Guérin prefers, "medical constitution;" though, with the exception of Mr. Glaisher's observations, we are utterly ignorant whether such factor be meteorological or telluric.

(To be continued.)

## REPORT ON SYPHILIS.

By C. R. DRYSDALE, M.D., M.R.C.P.L., F.R.C.S.E.,  
Senior Physician to the Metropolitan Free Hospital.

DR. THIRY, OF BRUSSELS, ON SYPHILIS.

OPINIONS as to the treatment of syphilis vary very greatly indeed, to the great misfortune of medical science; nor is there, of course, any way of reconciling the various opinions emitted by men of experience; so that the best plan, perhaps, is to let each speak for himself, so that bystanders without any opinion definitely made up may be enabled to arrive at some conclusion.

Dr. Thiry, of Brussels (*Presse Méd. Belge*, Nos. 97 and 98, 1874), has published a clinical lecture delivered at the Hôpital Saint-Pierre, of Brussels, in the month of June, which contains some new ideas on treatment.

Every day, says M. Thiry, you see numerous cases of syphilis at my clinique; they are always grave, and often present difficulties of diagnosis which I must enable you to surmount, so that shortly, when you shall be left to your own judgment, you shall not experience difficulties, or commit those gross errors which I am in the habit of remarking every day. On a question so clear as syphilis there are so many opinions diametrically opposed and contradictory to one another that I cannot too much warn you against the fashionable errors of the day. It has often been repeated that syphilis is not to be seized in its aspects, that it is variable in its forms and alterations; but this is not the case; certainly its forms may change according to the gravity of the disease, the tissues it attacks, the more or less advanced period at which it has arrived, but at the bottom of these alterations which are apparently so distinct we find its characteristic, which is the syphiloma, or initial induration, which takes place, without fail, after chancres, which end in their special way, that is, without having by energetic treatment been reduced to the condition of a simple suppurating wound.

We shall not to-day dilate further on these considerations, which, besides, you know well, for I hasten to pass to the examination of the fact which is to make the subject of this clinical lecture, and in which we shall find all the elements which prove the truth of the principles I teach.

A woman, aged 26, of lymphatic temperament, a laundress by trade, mentions that she had a lover who impregnated her, and communicated syphilis to her. About 22 months ago this woman was delivered of a weakly infant, which died six weeks after birth. Since her labour, which was a normal one, the patient says she has not enjoyed good health. Twelve months subsequent to the event she felt pains in the abdomen, and these were so strong that she was forced to enter the Hôpital Saint-Jean. She was attacked with peritonitis, and by means of fitting treatment, she was cured. Some time after her leaving, abscesses formed around her organs of generation, and seven weeks ago she was attacked with headache of violent character, with frontal neuralgia and facial tic, for which she went again to be prescribed for at Saint-Jean. But during her residence in that establishment, there appeared an eruption on her body, and syphilis having been recognised, she was sent to the Hôpital Saint-Pierre. (We presume this is the Venereal Hospital of Brussels.)

As you will notice, the face of this patient is pale, decomposed, and denotes terrible pain—that is, the syphilitic facies; she is chloro-anæmic, has lost her menstruation for six months, her muscles are flaccid, her skin and mucous membranes are pallid. The patient hangs her head and avoids the light. On examination of her eyes, we find the ocular palpebral conjunctivæ hyperæmic, with evident peri-corneal circle; the transparency of the cornea is troubled by a serous exudation formed in the anterior chamber; the iris of the two sides is irregularly deformed, angular, and discoloured; vision is difficult and painful; in a word, there is very intense double iritis.

The sub-occipital glands and those in the groin are hard. The whole body of the patient is covered with a papular eruption of a red coppery hue; by pressure the papule is made to project, and we notice the induration and the pearly-white tint characteristic of syphiloma.

The symptoms which we have just past in review, and above all, the existence of the syphiloma, permit us to diagnose syphilis. On examining the genital organs of this woman, we perceive on the external aspect of the right labium, as on the internal part on the left of the commissure, the traces of a chancre, and we feel clearly the induration; there is a true syphiloma there. Whatever this patient may tell us in the history of her antecedents, we dare to affirm that the chancres date from the epoch when she says she had abscess in this region. These pretended abscesses were chancres, and the infection dates from that period, for if it were otherwise, and if the infection, as she says, had been concomitant with her pregnancy, or twenty-two months back, how could we explain the long period of time elapsing between the contamination of the chancre and the appearance of syphilis. That would be impossible, unless we were to make inadmissible hypotheses. Again, that which we see and touch is quite in opposition with the information furnished to us, which proves the little weight you ought to place on subjective phenomena. Patients, remember, deceive you voluntarily or involuntarily; at other times, when you seek to influence their replies, they confirm all you demand of them. The general symptoms are, first of all, intense headache, which we may refer to the violent inflammation of the eye, then the chloro-anæmia produced by the penetration of the syphilitic principle into the blood, and, lastly, the syphilitic rash.

This woman, before her entrance into hospital, has been treated by the iodide of potassium; it was evidently not for the purpose of combating the syphilis that this drug was administered, but very probably for the neuralgia of which the patient complained. Iodide of potassium does not possess any influence on a patient whilst under the influence of syphilis; it is only when the syphilis has disappeared that we can destroy by the iodide of potassium the poisonous effects of the mercury, if it have been administered abusively.

Do not forget this, that iodide of potassium can do nothing against true syphilis; and if it is generally regarded as efficacious in the tertiary accidents of syphilis, it is because these accidents, called tertiary, frequently are foreign to syphilis, and that they have been beforehand tried unavailingly by mercury.

All the facts, and they are numerous, which I have been able to observe, confirm me in this opinion. It would be strange indeed, if what I assert were not founded on truth, that mercury should cure the accidents called secondary, and should fail against tertiary accidents, which proceed from the same principle, whilst the iodide of potassium, by a not less strange singularity, should be powerless against the secondary accidents (1st period of syphilis) and should cure tertiary accidents (2nd and 3rd periods of the same syphilis). This pretension surpasses the limits of reason, and facts well diagnosed do not confirm it. (a)

Besides, mercury administered in an intelligent way scarcely ever produces the disastrous effects that persons are fond of attributing to it.

Incontestably, it is anti-syphilitic treatment to which we ought to have recourse, that alone can make the grave symptoms we have before our disappear. In vain would you prescribe iodide of potassium, or launch yourselves

in the dangerous path opened before you by certain reformers by administering chromic acid, preparations of iron, and tonics; you would certainly fail, and the disorders would become so great that the life of the patient might be rapidly endangered by this.

But if mercurial preparations alone are capable of curing this patient, you ought not to forget that she is the subject of certain lesions, and notably of iritis, which would end in annoying results if you did not assist your treatment by specifics, by auxiliaries capable of preserving the iris from the consequences which the inflammatory accidents you persevere in it may provoke. The iritis is certainly syphilitic; but this syphilitic condition is complicated with inflammatory phenomena; these last ought to be combated in a peculiar manner, and at the same time as you are treating the diathetic state.

We then order for this woman four pills a day, composed of two milligrammes of corrosive sublimate and one centigramme of gummy extract of opium. Each of these pills is to be swallowed with a glass of the decoction of sarsaparilla.

Every second day a friction for a quarter of an hour with Neapolitan ointment is to be made on the external aspect of the limbs, and after every two frictions a tepid starch bath is to be taken.

A reparatory animal diet, in small rations at a time, with two meals a day, is ordered for the patient.

To combat the iritis at once, we prescribe a collyrium, composed of five centigrammes of neutral sulphate of atropia and ten grammes of water. Three or four drops of this will be instilled into the eyes thrice daily, in order to dilate and relax the iris; besides, some frictions with mercury and belladonna will be made around the orbit.

This treatment, regularly followed out, has given the best results. In a few days the accidents connected with the iris were passed, and, a month afterwards this patient was completely transformed, and commenced to come out of the profound cachexia into which she had fallen, and regain strength and tone. One would say that mercury had brought new life to this organism, by opposing itself energetically to the invasion of the destructive syphilitic poison.

On the 10th of August the iritis was quite cured, and vision was excellent. The rash was gone, as well as the occipital and inguinal enlarged glands; we might have supposed her cured, if she had not complained of vague pains in the limbs, and maintained a certain amount of weakness and anæmia, due probably to the fact that her menstruation had not yet returned.

To cure this state, we suppress the pure mercurial treatment, which has been carried on till this date, and replace it by the following:—

- 4 grammes of iodide of potassium,
- 3 milligrammes of cyanide of mercury,
- 15 grammes of syrup of codeia,
- 100 grammes of distilled water.

A tablespoonful for a dose, morning and evening. We have always found this preparation do well after a long course of mercury, and especially when vague pains remain, which make us suppose there is nervous disease.

At the same time, to remedy the anæmia, and cause the reappearance of menstruation, we prescribe pills of lactate of iron and extract of aloes, the patient to take one at each meal, and to eat more abundantly of nourishing food.

Sitz-baths every morning, in which two handfuls of common kitchen salt are dissolved.

By this medication we expect to modify rapidly the constitution of our patient, to dissipate her pains, and regularise her functions.

The next lecture of Dr. Thiry is rather a startling one, and will, we doubt not, astonish many besides ourselves, for, in it, he actually denies that mucous tubercles are a part of syphilis. For our part, if there be any lesion pathognomonic of syphilis to our eyes, it is precisely the mucous tubercle, and this is the received opinion in the profession. But let us hear Dr. Thiry.

In a lecture reported in the *Presse Méd. Belge*, No. 38,

(a) It will be seen by readers of the *MEDICAL PRESS AND CIRCULAR* who have attended to the lectures of Dr. Alfred Fournier, lately published therein, how completely at variance Dr. Thiry's ideas of the value of the iodide of potassium in tertiary lesions are with those of Ricord and Fournier. I may add that I entirely endorse the views of Fournier on this point, and think Dr. Thiry completely in error in failing to recognise the incalculable value of the iodide in gummy tumours.—C. R. D.

he says that among the affections which are generally looked upon as syphilitic, and which yet have nothing in common with the chancre or with syphilis, we shall cite that villanous disease, so frequent, and to which the name of *mucous tubercles*, *mucous pustules*, *Nat* and *humid* have been given.

He adds : In what I am about to say on this subject, as it is against received opinions, and is even in opposition with the opinion of *savants* of the highest distinction, I would pray you to fill your mind thoroughly with the considerations into which I am about to enter, and, in order to convince you of their truth, to follow carefully the curious case which calls up this subject, and which we are about to consider together.

Mucous tubercles have nothing in common with syphilis, whatever practitioners may think, who, until now, have considered them as being, as may be said, a pathognomonic symptom of this diathesis.

Anatomically and pathologically, they present none of the essential characters of syphilis ; they are formed by round or oblique tumours, resulting from the hypertrophy of the follicles of the skin and subcutaneous cellular tissue ; they are not at all the consequence of a very active inflammation, for most generally their colouration is dark brown, the venous capillaries are more developed than the arterial capillaries ; they have no trace of syphiloma, and in place of being hard, are soft, easily depressible, without any pearly aspect.

Mucous tubercles are discrete, or united in more or less considerable groups ; eroded at their summits, the mucous tubercles secrete a serous liquid, which only becomes irritating when it accumulates in the interstices we meet in those parts where numerous mucous tubercles are seen to collect. The liquid thus accumulated decomposes and gives forth a fœtid odour of peculiar kind ; sometimes the erosion of which I have spoken may become ulcerated, and then form a parchment-like plate, or acquire a characteristic hardness ; then complications have arisen in the mucous tubercles, about which I shall have to speak immediately.

If you incise a rather voluminous mucous tubercle, you find all the elements which constitute the derm, and besides these, an interstitial plasma. The sebaceous follicles have larger proportions ; all these elements, besides being exaggerated, are gifted with a greater consistence, which, as I have told you, is not so hard as the syphiloma. You will notice that I insist greatly on this point.

Mucous tubercles are primarily developed, and constitute the sole alteration remarked : they never alter the constitution of the patient who is the subject of them ; on the contrary, if art do not interfere, they multiply, take large proportions, and may inoculate the neighbouring parts, or even propagate themselves over different parts of the body.

I have noticed a case where almost all the skin was covered with them, from the intervals between the toes up to the scalp. The patient was repulsive, and gave forth an odour of extreme fetidity. The individual we are about to examine is nearly in this same condition. Almost always, in similar cases, by merely looking at the evil aspect of the patient, syphilis is diagnosed authoritatively. Nevertheless, it is not the case, and the rapidity with which we make, by the simplest plans, such affections to disappear, would prove most clearly, if we had not to assist our opinion the analysis of anatomy and pathology, which does not reveal to us any of the elements necessary to constitute a syphilitic manifestation.

Mucous tubercles may appear consecutively, and at the same time as another disease ; in other words, the cause which presides over their development acts simultaneously with other causes ; each of them produces the effects which it brings with it, and these effects are associated and confounded. If we are not forward, we attribute them often to one sole cause, which is either the chancre

poison or the syphilitic poison, an absolutely false way of looking at it, as I have told you.

In our case, mucous tubercles are associated with urethritis, or blennorrhagia. The blennorrhagia is then looked on as the cause of mucous tubercles, and as these are gravely accused of syphilitic poison, persons cite these facts as a proof of the syphilitic nature of blennorrhagia.

At another time, mucous tubercles exist along with chancres ; sometimes even these chancres are engrafted upon mucous tubercles. This is the contagious virulent mucous tubercle, the secondary symptom *par excellence* of authors. Indeed, if you did not know the peculiar nature of the mucous tubercle, you might commit this error.

You would inoculate, for instance, the matter of an ulcerated mucous tubercle with chancre virus, and you will necessarily obtain a chancre, and as you would take the mucous tubercle, without thought of the existence of the chancre, for a manifestation of secondary character, you would evidently conclude, with certain very distinguished authors, that syphilitic accidents, called secondary, reproduce themselves by inoculation under the form of chancres. Besides, you would be the more convinced that you were right, that in many cases the chancres inoculated on the mucous tubercles become hard, and then certainly end in syphilis.

Lastly, nothing prevents mucous tubercles from being developed during the duration of syphilis ; because a patient is attacked with this latter diathesis, it is no reason that he should be sheltered from mucous tubercles. It thus happens that persons do not remark the distinction we are endeavouring to draw, and the mucous tubercles are more and more considered as a manifestation of syphilis, and as asserting its existence.

This opinion is, however, erroneous. You will have the proof of this on carefully observing the effects of the treatment you make use of. If you force these kind of patients to rigorous care and cleanliness, you will see the mucous tubercles disappear in a few days, whilst the urethritis, the chancres, and the syphilis will resist, sometimes for long, your therapeutic efforts.

Most generally, mucous tubercles are seated on the genital organs : in the male they are seen on the lips of the meatus urinarius, on the gland, the prepuce, or scrotum ; in the female they are in groups, and close together, along the labia majora, the mons Veneris, at the orifice of the vagina, and even on the cervix uteri.

In the two sexes they are seen most frequently at the margin of the anus, at the internal and upper part of the thighs, and the inguinal regions ; then on the navel, in the axillæ, at the commissures of the lips, the nasi, at the commissures of the eyelids, on the forehead, behind the ears, at the nape of the neck, at the summit of the head, on the tongue, tonsils, or between the toes or fingers.

In general, the mucous tubercles grow with facility wherever the skin is abundantly furnished with cutaneous follicles and sweat ducts, and where it is similar to the mucous membrane.

We shall consider the mucous tubercle as having a quite peculiar essence, that is, a morbid type, very villanous, it is true, but not at all grave, and rapidly cured. Irritating simple causes do not produce them any more than the chancre virus, or the syphilitic poison. The conditions which we have ascertained as most commonly presiding over their appearance are the following—great want of cleanliness, and the abuse of connection between two persons equally uncleanly.

You will very frequently observe, gentlemen, that mucous tubercles are contagious, and propagate themselves even on the patient himself who is affected.

In another clinical lecture, contained in No. 39 of *La Presse Médicale Belge*, M. Thiry completely pronounces against the so-called *dualistic* theory of syphilis, held at present by the great majority of scientific writers in Paris and elsewhere.

His evidence against dualism is given from the consideration of a case of phagedæna of the glans penis, accompanied by phymosis, which was followed by syphilitic rash. This fact M. Thiry supposes to be a testimony against the idea that the soft sore is quite foreign to syphilis.

But M. Ricord, and all writers of the French school, have remarked that phagedæna occasionally, although very rarely, attacks the hard or non-suppurating sore, and, of course, phymosis in such a case may be conjoined with the true chancre.

It is singular indeed that in the two instances we have cited from Dr. Thiry such striking deviations from the ordinarily received opinions should have to be chronicled from a man of experience.

But in venereal disease scepticism and doubt have been a chronic malady, and it is reserved, we fear, for a future generation to have some catholicity as to the pathology and treatment of syphilis. We avow ourselves, in the meantime, partisans of the dualistic theory.

### CASES IN PRACTICE.

Reported by JOHN W. MARTIN, M.D.,

Assistant-Surgeon Mayfield Factory Dispensary, Portlaw, &c.

*CASE.—Aortic Patency—Paralysis of the Muscles of the Right Side of the Face, and of the External Rectus of the Left Eye, with Strabismus and Double Vision—History of Chronic Rheumatism—Recovery.*

JOHN SHEA, æt. 53, by occupation a beamer in the factory. (Notes taken February 23rd, 1874.) He gave the following as the history of his case: He has been delicate for the past sixteen years, and dates the change in his health from a severe attack of rheumatic fever, which he had about that time, with subsequent paralysis of the right arm, the use of which he did not recover for the space of twelve months. Four years ago he first felt a sharp pain in the region of the heart and epigastrium, accompanied by flatulence, alkaline eructations, constipation, loss of appetite, and other dyspeptic symptoms of such a marked character that no attention was directed to the state of the heart itself, the treatment being confined to that usual in cases of dyspepsia. He was compelled to give up work, and has never since been able to resume it for any length of time, as he has rarely been free from pain.

In the commencement of January, 1874, whilst in the Union Hospital in a state of convalescence from a sharper attack than usual of the dyspeptic symptoms, he noticed one morning that he saw everything double, shortly afterwards he felt great pain in the right side of his head and the whole of that side of his face; the surface was swollen, and tender to the touch; the right ear became painful, and quite deaf; the pain was much increased by speaking. He suffered from complete loss of rest.

He had been so long complaining, the dyspeptic symptoms were of such an intractable character, and he had acquired such a reputation for making the most of whatever was the matter with him, that these symptoms were overlooked, or not believed in, and he was discharged from hospital. Returning to Portlaw, and presenting himself for treatment, my attention was directed more closely to his case by my father, who noticed the strabismus of the left eye.

The following were the symptoms I noted: Complexion sallow, and general appearance one of great delicacy and weakness; greater fulness about the right side of the face than the left; the muscles flabby, and marked by a want of tone; the mouth presenting the usual appearances in cases of facial paralysis, the right angle drooping, the left slightly drawn upwards; pain is felt in the articulation of the lower jaw on the affected side, rendering it difficult to open his mouth; the tongue protruded weakly, and to right side; his articulation hesitating, slow, and indis-

tinct, the more decidedly so when induced to speak more rapidly than usual; when speaking for any time feels the voice greatly fatigued. Owing to the difficulty experienced in opening his mouth, I was unable to obtain a satisfactory laryngoscopic examination. There is paralysis of the velum palati on the right, and the tip of the uvula is arched towards the same side; there is internal strabismus of the left eye (the right being unaffected), the external rectus being paralysed, as evidenced by the impossibility of rotating the eye outwards beyond a point midway between the median axis and outer canthus; there is some tenderness to pressure, with increased tension in the eyeball, and the ophthalmoscope reveals well-marked congestion of the retina as compared with the unaffected eye.

*State of the Heart.*—Rhythm and force normal; no increase in the area of dulness; first sound distinct, second sound lost; a short, sharp, rough murmur, heard best at the apex, immediately preceding the impulse and first sound, at a point one and a half inches below, and to the right of the left nipple; this murmur was heard softer in character at a point mid-sternum, opposite the articulation of the 4th rib.

The second sound was replaced by obstructive and regurgitant murmurs, the first heard most distinctly in the third intercostal space on the right margin of the sternum; the latter in the second intercostal on the same side. The obstructive or systolic murmur is propagated along the arch of the aorta, and into the right carotid artery. The murmurs at the base of the heart are not well heard to the left of the sternum. He had two severe attacks of hæmoptysis in June, 1873, but none since. Never had any cough or pulmonary symptoms. Tongue clean; his bowels costive; liver normal; walks well; finds no difficulty in standing with his feet placed together and his eyes closed.

*Treatment.*—Placed him on 1-16th of a gr. of hyd. bichloridi, twice daily, in mixture.

March 5th.—General appearance much improved; swelling in the right side of the face diminished; less pain in the articulation of the lower jaw; tone of muscles improved; tongue deviates only slightly to the right; left eye recovering the power of outward rotation.

March 13th.—Still improving, with the exception of persistent headache in the right parietal region, by which he is prevented from resting at night.

R Potass. iodidi, ʒi.;  
Hydrarg. bichloridi, gr. i. (in solution);  
Syrupi, ʒi.;  
Aqua ad ʒiij. M.

One tablespoonful to be taken three times a day.

March 16th.—Free from headache; paralysis of the eye quite gone; general appearance greatly improved.

March 21st.—The swelling in the right side of the face has almost disappeared; the muscles recovering power; general expression improved. Phonation and articulation stronger and more distinct; some changes observable in the condition of the heart from that noted in the first examination. The basic murmurs more pronounced; the regurgitant murmur formerly heard in the 3rd intercostal space on the right margin of the sternum now heard at the articulation of the 4th rib on the left side with the sternum. Instead of the single murmur, before described as heard at the apex, there now exists a well-marked double murmur; in its first part this murmur in part precedes, in part accompanies, the impulse and first sound; in its second half it follows the first sound and impulse, occupying the first half of the period of rest. This murmur is propagated in the direction of the lower edge of the sternum, gradually reaching its maximum intensity in the first intercostal space, near the articulation of the 5th rib. Mid-sternum, opposite the same point, a short sharp clicking murmur is heard accompanying the impulse and first sound, most probably due to pericardiac friction.

His general appearance greatly improved. Treatment continued.

March 31st.—Improvement permanent.

R. Potass. iodidi,  $\mathfrak{z}\text{i}$ .;  
Liq. cinchonæ,  $\mathfrak{z}\text{i}$ .;  
Tr. cinchona,  $\mathfrak{z}\text{ss}$ .;  
Syrupi,  $\mathfrak{z}\text{i}$ .;  
Aquæ ad  $\mathfrak{z}\text{xij}$ . M.

Two tablespoonfuls to be taken three times a day.

R. Oleum morrhua,  $\mathfrak{z}\text{viij}$ .

One tablespoonful to be taken at night in a little warm milk.

The subsequent history of the case was one of steady improvement, and restoration to a state of comparative good health.

In remarking upon the symptoms presented in the foregoing case, two hypotheses present themselves to account for them :—

The first, one of embolism, of some one or other of the smaller arteries at the base of the brain, in favour of which we have the existence of old-standing valvular disease of the heart. The second, that of rheumatic inflammatory changes in the sheaths of the affected nerves, at their intracranial origin. For my own part, I am inclined to regard the latter as the more satisfactory.

Embolism would, I think, have produced a more serious and decided train of symptoms. The limited and bilateral character of the paralysis, the portio dura of the 7th and the 9th, or hypoglossal, on the right side, and the 6th on the left, being the only nerves involved, decidedly impress me with the idea that the paralysis had its origin in some affection of the nerves themselves rather than in the central organ, the brain. This opinion appears to receive additional support from the immediate and favourable result of a mercurial course of treatment, which we know exerts a powerful controlling influence over most forms of local inflammatory congestions, and further, we know that these latter are not at all unusual where the rheumatic taint exists, as it did in this case.

## STUDENTS' COLUMN.

### LESSONS ON PRESCRIPTIONS AND THE ART OF PRESCRIBING. (a)

By W. HANDSEL GRIFFITHS, Ph.D., L.R.C.P.E.,

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#### LESSON VII.—(Continued).

##### PHARMACOPŒIAL GROUPS.

###### ACETA.

Acetum.  $\mathfrak{z}\text{i}$ .—ii.  
Acetum Scilla.  $\mathfrak{M}$  xv.—xl.

###### AQUÆ.

The dose of all the aquæ is  $\mathfrak{z}\text{i}$ .—ii., except *Aqua Laurocerasi*, the dose of which is  $\mathfrak{M}$  v.—xxx.

###### CONFECTIONES.

The dose of all is  $\mathfrak{z}\text{i}$ .—ii., except *Confectio Opii*, which is gr. v.—xx., and *Confectio Scammonii*, which is gr. x.—xxx.

###### DECOCTA.

The dose of all is  $\mathfrak{z}\text{i}$ .—ii. except—

D. Scoparii. }  $\mathfrak{z}\text{ii}$ .—iv.  
D. Taraxaci. }  
D. Ulmi. }  
D. Sarsæ Compositum. }  $\mathfrak{z}\text{ii}$ .—x.  
D. Sarsæ. }  
D. Hordei, ad lib.

###### ESSENTIA.

The dose of both the essences is  $\mathfrak{M}$  x.—xv.

(a) Corrected from shorthand notes by one of the author's pupils.

##### EXTRACTA.

The dose of all the liquid extracts is  $\mathfrak{M}$  x.—xxx., except—

E. Glycyrrhizæ L.,  $\mathfrak{z}\text{i}$ .  
E. Bellæ L. }  $\mathfrak{M}$  xxx.— $\mathfrak{z}\text{ii}$ .  
E. Pareiræ L. }  
E. Sarsæ L.,  $\mathfrak{z}\text{ii}$ .—iv.

The following are the doses of the solid extracts :—

E. Physostigmatis. gr. 1-16th— $\frac{1}{4}$ .  
E. Stramonii. gr.  $\frac{1}{4}$ — $\frac{1}{2}$ .  
E. Cannabis Indicæ. } gr.  $\frac{1}{4}$ —i.  
E. Belladonnæ. }  
E. Aconiti. }  
E. Colchici. } gr.  $\frac{1}{2}$ —ii.  
E. Colchici Aceticum. }  
E. Nucis Vomica. }  
E. Opii. }  
E. Aloës. } gr. ii.—v.  
E. Conii. }  
E. Papaveris. }  
E. Quassia. }  
E. Anthemidis. }  
E. Calumbæ. } gr. ii.—x.  
E. Colocynthis Compositum. }  
E. Gentianæ. }  
E. Hyoscyami. }  
E. Jalapæ. } gr. v.—xv.  
E. Lactucæ. }  
E. Lupuli. }  
E. Rhei. }  
E. Glycyrrhizæ. }  
E. Hæmatoxyli. } gr. x.—xx.  
E. Krameria. }  
E. Pareiræ. }  
E. Taraxaci. }

##### INFUSA.

The dose of all is  $\mathfrak{z}\text{i}$ .—ii., except—

I. Digitalis,  $\mathfrak{z}\text{ii}$ .—iv.  
I. Anthemidis. }  $\mathfrak{z}\text{i}$ .—iv.  
I. Buchu. }  
I. Caryophylli. }  
I. Matico. }  
I. Casso,  $\mathfrak{z}\text{iv}$ .—viii.

##### LIQUORES.

The dose of the majority of the liquores is  $\mathfrak{M}$  v.—xxx.

The following are the exceptions :—

L. Ammonia Fort. }  
L. Arsenicalis. }  $\mathfrak{M}$  ii.—viii.  
L. Arsenici Hydrochloricus. }  
L. Sodæ Arseniatis. }  
L. Strychnia. }  
L. Chlori. }  $\mathfrak{M}$  v.—xx.  
L. Sodæ Chloratæ. }  
L. Hydrargyri Perchloridi,  $\mathfrak{M}$  xxx.— $\mathfrak{z}\text{ii}$ .  
L. Potassæ Permanganatis,  $\mathfrak{z}\text{ii}$ .—iv.  
L. Ammonia Acetatis. }  $\mathfrak{z}\text{ii}$ .—vi.  
L. Ammonia Citratis. }  
L. Magnesiæ Carbonatis,  $\mathfrak{z}\text{i}$ .—ii.  
L. Magnesiæ Citratis,  $\mathfrak{z}\text{v}$ .—x.  
L. Calcis,  $\mathfrak{z}\text{i}$ .—iv.  
L. Lithiæ Effervescens. }  $\mathfrak{z}\text{v}$ .—x.  
L. Potassæ Effervescens. }  
L. Sodæ Effervescens. }

##### MISTURÆ.

The dose of all is  $\mathfrak{z}\text{i}$ .—ii., except—

M. Ammoniaci. }  $\mathfrak{z}\text{iv}$ .— $\mathfrak{z}\text{r}$ .  
M. Gentianæ. }  
M. Sennæ Co.,  $\mathfrak{z}\text{i}$ .— $\mathfrak{z}\text{ii}$ .

##### OLEA.

The dose of all is  $\mathfrak{M}$  i.—v., except—

O. Crotonis,  $\mathfrak{M}$   $\frac{1}{4}$ —i.  
O. Phosphoratum,  $\mathfrak{M}$  v.—x.

O. Copaibæ.	} ℥v.—xx.
O. Cubebæ.	
O. Terebinthinæ ( <i>Stimulant &amp; Diuretic</i> ).	
O. Amygdalæ, ℥i.—iv.	} ℥i.—℥i.
O. Terebinthinæ ( <i>Anthelmintic</i> ), ℥ij.—vi.	
O. Morrhuæ.	
O. Olivæ.	}
O. Ricini.	

The dose of *Oxymel* is ℥i.—ii.; and of *Oxymel Scillæ* is ℥xxx.—℥i.

## PILULA.

Dose of all is gr. v.—x., except—	
P. Phosphori.	} gr. iii.—v.
P. Plumbi cum Opio.	
P. Saponis Composita.	
P. Ferri Iodidi.	} gr. iii.—viii.
P. Hydrargyii.	
P. Ferri Carbonatis, gr. v.—xx.	

## PULVERES.

The following are the doses of the powders:—

P. Elaterii Co. gr. $\frac{1}{4}$ —v.	} gr. v.—xx.
P. Opii Compositus, gr. ii.—v.	
P. Antimonialis, gr. iii.—x.	
P. Ipecacuanhæ Compositus, gr. v.—xv.	} gr. x.—xl.
P. Kino Compositus.	
P. Scammonii Compositus.	
P. Cretæ Aromaticus cum Opio.	} gr. x.— $\mathfrak{z}$ i.
P. Aromaticus.	
P. Catechu Compositus.	
P. Cretæ Aromaticus.	} gr. x.— $\mathfrak{z}$ i.
P. Glycyrrhizæ Compositus.	
P. Jalapæ Compositus.	
P. Rhei Compositus.	} gr. x.— $\mathfrak{z}$ i.
P. Tragacanthæ Compositus.	
P. Amygdalæ Compositus, $\mathfrak{z}$ i.—ii.	

## SPIRITUS.

The dose of all spirits is  $\mathcal{M}$  xx.— $\mathfrak{z}$ i., with the following exceptions:—

S. Camphoræ. $\mathcal{M}$ x.—xxx.	} $\mathcal{M}$ xxx.— $\mathfrak{z}$ ii.
S. Ætheris.	
S. Ætheris Nitrosi.	
S. Arnoracæ Compositus.	

## SUCCI.

The doses of these are as follows:—

S. Belladonnæ. $\mathcal{M}$ v.—xv.	} $\mathfrak{z}$ i.—ii.
S. Conii. $\mathcal{M}$ xxx.— $\mathfrak{z}$ i.	
S. Hyoscyami. $\mathfrak{z}$ ss.— $\mathfrak{z}$ i.	
S. Scoparii.	} $\mathfrak{z}$ i.—ii.
S. Taraxaci.	
S. Limonis. $\mathfrak{z}$ i.—iv.	
S. Mori. <i>ad lib.</i>	

## SYRUP.

Dose of all is about  $\mathfrak{z}$ i., except—

S. Ferri Iodidi.	} $\mathcal{M}$ xxx.— $\mathfrak{z}$ i.
S. Scillæ.	
S. Chloral. $\mathcal{M}$ xxx.— $\mathfrak{z}$ ii.	
S. Rhei.	} $\mathfrak{z}$ i.—iv.
S. Sennæ.	

## TINCTURA.

The tinctures may thus be grouped, according to their dosage:—

T. Aconiti; T. Belladonnæ; T. Cannabis Indicæ; T. Cantharidis; T. Capsici; T. Iodi; T. Nucis Vomica; T. Veratri Viridis; T. Zingiberis Fortior.	
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*All*  $\mathcal{M}$  v.—xx.

T. Colchici Seminie; T. Digitalis; T. Ferri Acetatis; T. Ferri Perchloridi; T. Laricis; T. Lobelia; T. Lobelia Ætherea; T. Opii; T. Scillæ; T. Stramonii; T. Sumbul; T. Tolutana.	
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*All*  $\mathcal{M}$  v.—xxx.

T. Assafoetida; T. Benzoini Composita; T. Camphoræ Composita; T. Castorei; T. Chloroformi Composita;	
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T. Croci; T. Guaiaci Ammoniata; T. Hyoscyami; T. Myrrhæ; T. Opii Ammoniata; T. Sabinæ; T. Valerianæ Ammoniata; T. Zingiberis.

*All*  $\mathcal{M}$  v.— $\mathfrak{z}$ i.

T. Aloes; T. Arnica; T. Aurantii; T. Aurant Recent.; T. Buchu; T. Calumbæ; T. Cardamomi Composita; T. Cascarilla; T. Catechu; T. Chirata; T. Cinchonæ Composita; T. Cinchonæ Flavæ; T. Cinnamomi; T. Conii; T. Cubebæ; T. Ergotæ; T. Gallæ; T. Gentianæ Composita; T. Jalapæ; T. Kino; T. Krameria; T. Lavandulæ Composita; T. Limonis; T. Lupuli; T. Quassia; T. Quiniaz; T. Quiniaz Ammon.; T. Senega; T. Serpentaria; T. Valeriana.

*All*  $\mathcal{M}$  xxx.— $\mathfrak{z}$ ii.

T. Sennæ.  $\mathfrak{z}$ i.—iv.  
T. Rhei (*Purgative*).  $\mathfrak{z}$ iv.— $\mathfrak{z}$ i.

## TROCHISCI.

From one to six of any of the lozenges may be given, except lozenges of ipecacuanha, of which not more than three should be administered.

## VINA.

The following are the doses of the wines:—

V. Colchici.	} $\mathcal{M}$ x.—xxx.
V. Ipecacuanhæ ( <i>Expectorant</i> ).	
V. Opii.	
V. Aloes.	} $\mathfrak{z}$ i.—ii.
V. Rhei.	
V. Ferri.	} $\mathfrak{z}$ i.—iv.
V. Ferri Citratis.	
V. Ipecacuanhæ ( <i>Emetic</i> ). $\mathfrak{z}$ iii.— $\mathfrak{z}$ vi.	} $\mathfrak{z}$ iv.— $\mathfrak{z}$ i.
V. Antimonialis ( <i>Emetic</i> ).	
V. Quiniaz.	

In the foregoing summary I have included those substances which are contained in the recent "Additions" to the Pharmacopœia. I will not now speak of *accumulation* and *toleration* of drugs, as I have elsewhere treated in detail of these important subjects.

The following quotation from an able article in the *Medico-Chirurgical Review*, (a) will form a fit conclusion to the present lesson: "Doses are the most relative things in the world. It must be confessed that a certain maturity of mind and boldness of action are requisite to escape from the slavery of pathological entities and essences, and to allow the apparent exigencies of the case before us to be our sole guide. That constitutional bashfulness which is called 'caution,' which habitually delights in small ways, and which is half-afraid of the instruments it uses, should practise other arts than the art of medicine. A wise courage is the physician's watchword."

(To be continued.)

## Luxation of the Tendon of the Tensor Vaginæ Femoris.

DR. ARDENNET, of Foissac, reports the following case: He was recently consulted by a labourer, who stated that, while engaged in the field at labour which required great efforts on the part of the inferior extremities, he suddenly experienced an acute pain in the right knee. On examination, the most apparent symptom was the acuteness of the pain when the right leg was moved. The leg was flexed, and with some difficulty the author succeeded in extending it. A small tumour was then found located behind and above the external condyle of the femur, which was very tender on pressure, and connected with a cord which extended downward and from within outward. The author thereupon made the diagnosis of luxation of the tendon of the fascia lata, produced by extraordinary muscular effort, and after several attempts succeeded in replacing it in its normal position. This was accomplished by exerting pressure from without inward with the thumb of the right hand while the left sustained the limb. As soon as the tendon recovered its normal position, anterior to the external condyle, the patient experienced complete relief, and could walk without pain or difficulty, and on the following day returned to his customary duties.—*New York Medical Journal*, Sept., 1874; from *Journal de Thérap.*, 1874.



## Hospital Reports.

### CHARING CROSS HOSPITAL.

#### *A Supplementary Spleen.*

AN interesting case of farcy was admitted into the above-mentioned hospital last week, which terminated fatally, from exhaustion, in a few days. Only one abscess in the left axilla required opening. The post-mortem revealed the following: The body was well nourished generally; a few pustules on the upper part of the thorax; both lungs in the first stage of pneumonia; on the right side there were old pleuritic adhesions; the heart sound was empty; the lining of the aorta was covered with atheromatous patches; liver normal, also the spleen, and, strange to say, there was a supplementary spleen, the size of a walnut; the kidneys were congested, especially the right, which was larger than the left, and weighed considerably more; the lymphatic system generally was in a state of turgescence, but there was no appearance of pus in any of the joints or internal organs.

### RICHMOND HOSPITAL, DUBLIN.

*Scald of the Glottis followed by Œdema—Tracheotomy—Recovery.*

(Under the care of PROF. STOKES.)

Reported by MR. C. N. GWYNNE, Acting House-Surgeon.

ERNEST MCGUINNESS, æt. one year and eight months, was admitted on the 5th of August last, at 10.40 p.m., suffering from intense dyspnoea. The mother gave the following history:—

About 4.30 p.m., the same day, she had occasion to leave the child alone for a few moments, and on returning found it in the act of endeavouring to drink hot water out of a kettle that lay near the fire. She lost no time in bringing the child to the Richmond Hospital, which was close at hand, where it was seen by the resident pupil on duty. There being then nothing calculated to excite immediate alarm beyond slight evidence of recent scalding about the lips, the mother was desired to take the child home and to watch it closely, and if she noticed the mouth becoming swollen, or any difficulty of breathing to lose no time in bringing it back. Whether these injunctions were in part disregarded, or that the dyspnoea set in suddenly, which was the account given, it is hard to say; be it as it may, when the child was brought into hospital, at 10.30 p.m., it was suffering from the most intense dyspnoea, the lips and inside of the mouth looked white and scalded, the face wore a cyanotic hue, and the pulse was so weak as scarcely to be perceptible.

Being at once convinced that the case had passed the stage when calomel and antimony or other antiphlogistic treatment could be of any service, and that the only chance lay in prompt operative interference, I lost no time in despatching a messenger for Prof. Stokes, and in the meantime applied hot stupes assiduously to the child's throat, and, while watching closely the progress of the case, made every preparation to perform an operation at a moment's notice should it be necessary. After waiting anxiously for somewhat more than half-an-hour the messenger returned with the report that Prof. Stokes was not at home, so, observing that the case was becoming more and more urgent, and that no time was to be lost if an operation was to be of any use, I determined to open the trachea myself.

Placing the child on a table in a room in which a fire had been previously lighted, and being ably assisted by Mr. Murphy and two of the resident pupils, Mr. Cosgrave and Mr. McDonnell, I cautiously opened into the trachea, below the isthmus of the thyroid gland, which was plainly recognised and drawn up out of the way. There being no tube small enough, I introduced a portion of a No. 5 French gum-elastic catheter; but this becoming much

clogged with mucus, I subsequently removed it and introduced a No. 9 in its stead. There was no hæmorrhage of any consequence during the operation, and after it was over the child experienced immediate relief, and the pulse gradually regained strength.

Aug. 6th, 2 a.m.—Pulse 142; had the greatest difficulty in keeping the tube free; was obliged more than once to apply my mouth to it and extract the mucus. Subsequently I made use of a small-sized catheter, having a thread twisted round it, and this, kept immersed in a weak solution of salt and water, I passed in frequently, taking care barely to exceed the limits of the tube. This I found a most efficient method of liquifying and removing the gummy tenacious mucus that constantly adhered to the sides of the tube.

10.30 a.m.—Seen by Prof. Stokes, who pronounced the case to be doing well. The patient was able to swallow a few teaspoonfuls of milk.

8.30 p.m.—The tube continues to be kept clear, in spite of a slight cough, thanks to the untiring and almost unremitting attention of Mr. Cosgrave. Pulse 162.

Aug. 7th, 11 a.m.—Is beginning to breathe a little through the mouth. In the afternoon of this day Prof. Stokes removed the tube. As there was considerable inflammation around the wound he did not think it advisable to close it, but thought it better to allow it to close up by granulation from the bottom.

Aug. 9th.—Still suffering from a bad cough. Linseed-meal poultices applied to chest.

Aug. 13th.—Cough better. Bread-and-water poultice applied to wound, which still continues somewhat sore and inflamed. Some air still passes through the opening. From this time forward until the day of its leaving hospital, the child, which had become much reduced, gradually recovered strength, and the cough, which at one time caused considerable apprehension, daily abated in severity. On the 27th inst. the opening into the trachea ceased to transmit air.

Aug. 31st.—Allowed to be removed home to-day. The wound has almost entirely closed up, the appetite is good, and all trace of cough has disappeared. I may add, as a matter of the last importance in such cases, that during the whole time that the wound in the trachea remained patent, especial attention was directed to keeping up an even high temperature in the room where the patient was, and this, further favoured by the uncommon warmth of the weather at the time, conducted in no slight degree to the successful issue of the case.

### GENERAL HOSPITAL, DOUGLAS, ISLE OF MAN.

#### CASES IN HOSPITAL PRACTICE.

By THOMAS A. WOODS, M.R.Dub., &c.,

ONE of the great advantages of a hospital is the confidence we obtain by experience in remedies we find recommended, and a knowledge of new properties and actions of measures suggested by circumstances; and I think it is the duty of every man who holds a hospital appointment to give to his brother practitioners any case which, although not startling from its magnitude or novelty, may be instructive. The following may, to some of your readers, rank in this category.

I was called on the 17th of September last to see a young woman of well-developed *physique*. She had always previously been healthy, but during that day she had been seized with epileptiform convulsions. She was quite unconscious, frothing from the mouth, tongue partly protruding, and face and neck congested, rolling her head from side to side. She had œdema of the legs, irregular and rapid pulse, involuntary ejection of the urine, and general fulness of body. She was unmarried, and I had no history of her case. Suspecting pregnancy, I made an examination, and I found my suspicions correct, and that she must have nearly arrived at her full time. The practice a few years ago would no doubt have been to take away twelve or fourteen ounces of blood, so threatening seemed the danger of congestion in

the head. I, however, was content to order twenty grains of chloral hydrate every fourth hour, and I had all impediments to free action of the heart and lungs removed. During the night she had nine similar attacks, with partial consciousness in the intervals. However, in the morning she had lost all bad symptoms, and lay perfectly tranquil and composed. The next evening I was hastily summoned to my patient, whom I found standing on the floor of her room with the body of a fœtus hanging from the vagina, the head alone being retained. I had her immediately placed in bed, and I brought away the child, which was dead, and I experienced much difficulty afterwards in getting the placenta, through an irregular contraction of the uterus. This woman perfectly recovered, and is now as well as usual. I believe the convulsive attack preceding the labour was brought on by mental worry and fear—the nervous shock so dangerous and depressing in these unfortunate cases, and for this reason I think a sedative and soothing plan of treatment more likely than any other to lead to a successful issue under these unhappy circumstances.

Another case was that of a man suffering from organic stricture of the membranous portion of the urethra. He was brought into hospital last week enduring much agony, the passage of the urine being entirely prevented. He was 45 years of age, a car-driver by occupation, and constantly exposed to hardship and change of weather, which induced in him a mode of life the reverse of temperate. He could ascribe no cause for the sudden and total inability to pass water. It generally came away almost *guttatim*, but now it had ceased altogether. I could not introduce any sized catheter, even the finest. I tried what effect could be produced by the warm bath, sedatives, antispasmodics, &c., in facilitating the introduction of the instrument, but all failed. I then applied four leeches to the perinæum, and shortly afterwards, to the great relief of my patient, as well as to myself, I slipped in with ease a small sized catheter, which I had to no purpose endeavoured to introduce before. I think this success is worth recording; certainly, if the same proceeding is attended with the same pleasant feeling to others as it was to me, I shall not have written in vain. I will just add that a stoppage of the water in a few days afterwards caused me again to introduce the catheter, but no urine passed, although the instrument entered the bladder. I found on withdrawing it that the eye was choked up with aropy mucus, and the same consequence foiled a second attempt. However, making the man strongly try to urinate as I brought away the catheter, the water passed in a rather good stream, and for the present he has been relieved.

#### NORTH LONDON CONSUMPTION HOSPITAL.

(Under the care of Dr. C. R. DRYSDALE.)

##### *Somnambulism.*

EMMA HALL, aged 25, married nearly five years, no children nor miscarriages. For three months past she has been affected with somnambulism, especially if worried in the day. Twice or thrice in the week she gets out of bed, asleep and walks about the room, or gets into the passage, quite without consciousness. Her husband gets up and brings her back to bed without her knowing anything of it. Great headache comes on after it. Has been subject to hysterical fits during the last seven years. She used to walk in this manner in her sleep as a child, but this left off at twelve years of years. She affirms that her sister used to walk about in the same way. Three of father's family were insane, and were in asylums. None of mother's family have been insane. Sometimes she cries out in her sleep, and frightens everybody. Menstruation regular; no dysmenorrhœa.

Dr. TILT has been elected an honorary member of the Obstetrical Society of Philadelphia.

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THE

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## The Medical Press and Circular.

"SALUS POPULI SUPREMA LEX."

WEDNESDAY, OCTOBER 23, 1874.

#### EXAMINATION v. CURRICULUM.

THE extremity of opinion into which the abuses of the lecture and certificate system have driven many thinking men in our profession is that which might reasonably have been anticipated—i.e., that all pre-examination teaching should be voluntary, and that the examination itself should be the sole test of proficiency. Some of the licensing bodies, and notably those subsidized by the State both in London and Dublin, have proceeded, to a certain extent, upon this hypothesis, and are conferring qualifications upon a very deficient curriculum, declaring in defence that their examinations are sufficiently searching to make it absolutely impossible that an ignorant man could pass their portals. The question has therefore arisen in a practical form how far it is possible to construct a system of examination and to select examiners who will inevitably filter out the lazy, incompetent, or superficially educated candidates without imposing too high a standard of education on students whose talents are mediocre in quality, and without checking too severely the demand for admission to the profession. This is undoubtedly the coming question amongst medico-educational topics, and any light which experience throws upon it may be gladly received. Like the costly war of opinion and experiment between ironclads and big guns, we are entering on our contest between shrewd examiners and sharper grinders—the examiners endeavouring to barricade the gates of the profession, and being every day out-generaled by knowing and hard-working besiegers, who somehow or other do manage to get their men within our outworks, no matter what vigilance we meet them with.

In the English Pharmaceutical Society this game of chess is aptly illustrated. The Society has all the powers which Parliament could give it for the control of pharmaceutical education; it has a monopoly, and is, therefore, able to fix its own requirements, and it has a sufficient supply of candidates to make it quite independent of either monetary considerations or of any difficulty in satisfying the demand for educated chemists. Its Council seems to have done its best to frame a careful system of examination, and has confided it to competent hands, and it evidently uses its powers of exclusion against the incompetent without any mercy.

The first examinations under the new regulations took place, we observe, on the 9th inst., when two candidates presented themselves for the Major, and both failed; seven for the Minor, of whom five failed; and twenty-seven for the Modified, of whom thirteen failed.

Pharmaceutical examinations were held also at Edinburgh. Seventy-five candidates presented themselves for the Minor examination, of whom twenty-eight passed. Four who offered themselves for the "Modified" all passed.

Out of 115 examinés, 67, or nearly 60 per cent., were rejected, so that we may assume that neither the examiners nor the Society are afraid to do their duty.

Nevertheless, it appears that, in the absence of some compulsory curriculum, the Court of Examiners finds itself unable to keep out the ignorant without running the risk of excluding also a class of fairly educated men with moderate talents. Mr. Giles, of Clifton, who delivered the inaugural address, and distributed the prizes, bewails the prevalence of the "cramming" system, and asserts that it can only be met by the establishment of a compulsory curriculum. He says:—

The object of examinations is to exclude the unqualified; the scarcely disguised object of "cram" is to pass the unqualified through. Whether at our own school, or elsewhere, a term of one, two, or three months is totally inadequate for the preparation which pharmacy requires of its disciples, and utterly insufficient to afford that amount of qualification which public opinion demands. The cramming system does this, and is working so much mischief to *bona fide* education that it is the bounden duty of all honest men to unite in stamping it out. Its operations are wide-spread; wherever examinations prevail (and where do they not?) this noxious parasite springs up and poisons the air. In the universities, the professional colleges, the army, the navy, the civil service—everywhere the evil is rampant, and, it must be admitted, triumphant; and everywhere the wail of examiners, cheated with open eyes, goes up. To show that our examiners are not more easily imposed upon than others, I will read a short extract from an article upon "cramming" in a popular periodical:—

"The disgusted examiner gradually recognises that he is not conversing with George Griffin, jun., but with Dr. Varnish, M.A., &c., who speaks all languages, knows something of everything, and is growing rich apace by preparing young gentlemen for the civil and military service of their country. Mr. Griffin is there in the body, certainly, with pink ears and heated forehead, and his preceptor is as undoubtedly absent; but, nevertheless, the examiner cannot but feel that all his efforts are as thoroughly baffled as if the young man were a medium, and Dr. Varnish held him under some as yet unknown mesmeric influence. There is no getting at the lad's real brain, no finding out what he will be when, at no distant date, he shall have forgotten Varnish and all his works. As it is, that subtle instructor of youth has armed him at all points; he is a pattern pupil, and has absorbed exactly such information, and no more, as will help him through the ordeal before him. If caught tripping on one subject, he is comfortably bolstered up on all the rest, and as the defeated examiner grudgingly sends in his name at the top of the list, he is forced to acknowledge with a sigh that Varnish is a very clever fellow."

This graphic sketch conveys the painful impression that the newly-developed idea of universal examinations, which was doubtless expected to give encouragement to education, has had a contrary effect; that it has diverted attention from education to fix it upon examination—that it has overwhelmed the substance in its own shadow, and invested the shadow with the semblance of reality. The

pharmaceutical crammer is equal to the occasion; he tempts unwary youths with the flattering assurance that he will qualify them for the examinations in five weeks! and forthwith commences a digested course of unmeaning jargon, of which, I am told, the following is a specimen, "Three—one—five—, catch 'em alive; one—two—three, out goes she"! and this, by some inscrutable property of association, is said to enable the candidate for pharmaceutical honours to remember (till next examination day) the respective constitution of carbonate of magnesia and carbonate of zinc! but for all useful purposes, for all that makes knowledge convertible into power to be utilised in after-life, he is as ignorant as he was before.

We commend these observations—the enunciation of actual experiences—to the Senate of the London University and the Queen's University in Ireland, and we ask them to consider whether the examinations which they have carried out with so much care, and of which they are justly proud, do really effect any other purpose than to admit all the well-ground men and winnow out all the practical workers whose knowledge is in their eyes and on their fingers' end, and not on the outside of their brain. The speaker goes on to say:—

The obvious remedy is the establishment of a compulsory curriculum of education at recognised schools as a condition of examination. The principle is generally adopted elsewhere; it prevails at the old universities, at the medical schools, at the more recently established Veterinary College, and in the Continental schools of pharmacy: and there is no feature of our system which our Continental brethren view with so much disapproval (not to say contempt), or regard as such a fatal blot upon its efficiency, as the absence of a prescribed course of study. I cordially agree with them, and speaking here without official reserve, and without the fear of implicating the higher powers (I may also say, without much fear of offending them), I express my deliberate conviction that a compulsory curriculum must sooner or later be adopted, and the sooner the better.

As far as the Pharmaceutical Society is concerned, it thus stands confessed that examinations are an unreliable test of proficiency, and, if that conclusion be a sound one, the sooner our educational reformers set themselves to work at the other end of their task and endeavour to make sure that pre-examination teaching shall be—what it has never been—genuine and practical, the sooner the difficulties of medical education will receive a permanent solution.

#### A PURE WATER SUPPLY.

It will not be denied that a pure water supply is of paramount importance to our town populations. It would be difficult to exaggerate the importance of the question of a wholesome water for domestic uses, in very many ways, and we therefore desire to draw special attention to a recently published pamphlet, entitled "A Microscopical Examination of Certain Waters submitted to Jabez Hogg, and a Chemical Analysis by Dugald Campbell, with Introductory Notes by Samuel Collett Homersham, Member of the Institute of Civil Engineers." Mr. Homersham, a well-known and eminent authority on the subject of water engineering, tells us that the publication of the pamphlet arose in this way:—

"A water company supplying a considerable town in Yorkshire from the river flowing through it, the water being drawn at a point two miles below the town, during the last session applied to Parliament for powers to substitute for the river water, mixed upland stream, and flood water, impounded together in an elevated artificial lake.

"The application was opposed before a committee of the House of Lords, to whom the Bill was referred, by several parties, on various independent grounds, supported by

evidence to prove that, an adequate quantity, at a less charge, and of a better quality, could be obtained and supplied from the enormous natural store of subterranean water contained in the new red sandstone geological formation, which crops out at the surface of the ground thirteen miles to the east of the town.

"The results of a microscopical investigation relating to the respective characters of the stream and of the subterranean water, although carefully made for the purpose, were not brought to the notice of the committee; nevertheless, the powers sought by the Bill were rejected. The microscopical results have a scientific interest beyond the purpose they were intended to serve, illustrating as they do an important difference between the respective characters and wholesomeness of two classes of water at present not widely enough understood; for this reason I have recorded them in the following pages, accompanied by a few short introductory and explanatory notes."

It is remarkable enough to find that neither the Royal commission of 1866, nor that issued at a later date, took any trouble whatever to institute a microscopical investigation of the numerous samples of water collected for examination, although in their report we find it stated that "with living microscopic organisms chemistry is unable to deal, and other modes of examination are needed." The Commissioners failed, therefore, in their duty to the public, inasmuch as they unfortunately left us in the dark as to some of the most important characteristics of the unwholesomeness of waters submitted to their judgment. Now, essential as it is to know what are the chemical qualities of water, it is of equal importance that a concurrently well conducted microscopical examination should at all times be made before a correct judgment can be pronounced on the condition of the water, and its freedom from the worst form of pollution and danger to health.

Dr. Hassall, in 1857, in a report addressed to the President of the General Board of Health of the day, gave the results of an elaborate microscopical examination of the metropolitan waters, and showed that Thames water taken at Hampton, and, after filtration, when conducted to the metropolis through the pipes of the companies, contained a large quantity of minute organisms, vegetable and animal. No more recent microscopical examinations have been made by order of the Government, consequently many of the essential conclusions arrived at in the Report of the Royal Commissioners, founded as they were upon insufficient data, will only be regarded by those more fully informed on the subject as containing grave inaccuracies; while in many particulars the statements in it are directly opposed to the evidence given by Dr. Frankland, and to the deliberate conclusions arrived at by the late Professors Graham and Miller, and of Professor Hoffman, who were appointed as commissioners to report on the chemical quality of the London water supply.

Many of our large provincial towns, however, have, within the last few years, entirely abandoned river waters for domestic uses, and now take their supply wholly from deep subterranean sources; and it cannot be too widely made known "that uncontaminated deep spring or subterranean water, so abundantly, so readily, and so cheaply obtainable from the copious stores treasured up in capacious natural reservoirs formed by minute but numerous pores that pervade the thick strata of chalk, new red sandstone rock, upper and lower green sand, and other porous geological formations, and so abundantly and continually replenished by the rains that fall upon the large area of their exposed and absorbent surfaces, is found free from all living vegetable or animal productions, and from all putrescible organic matter.

"The normal temperature of such water is uniform, being the average of the climate at its source for the year, which in this country differs but little, being about 50° Fahr. It is at all times clear, colourless, bright, well aerated, holding per gallon seven to eight cubic inches of air in solution, and it is wholesome, pleasant, and fresh to the taste.

"On the other hand, river, stream, flood, and surface

waters impounded in lakes or ponds have a normal temperature near the freezing point in winter, and often as high as 70° Fahr. in summer.

"Careful filtration through the best filters does not separate or free such waters from decaying organic matter held in solution, from urine, from minute living animal organisms that feed and grow on their contents, and which rapidly increase and multiply therein, more especially when the water is comparatively warm, as in summer, the season when it is most abundantly drunk.

"Water so impounded frequently contains in chemical solution a few (only four or five) grains of mineral matter per gallon; this is known as soft water. Judging, then, only from chemical analysis, this class of waters, more especially when taken for examination in cold seasons of the year, might be considered to be fit for domestic use. On the other hand, these waters, more especially if taken in the warm seasons of summer and autumn, and subjected to microscopical examination, must be pronounced, owing to the quality and quantity of their organic contents, living and dead, to be, even after filtration, quite unsuited for drinking, and for many other uses.

"While river and flood waters impounded in lakes vary considerably in the hot and cold seasons of the year as regards the quantity and quality of their organic and other solid contents, it is found that uncontaminated subterranean waters, at all seasons, are quite free from organic pollution. The hot and cold seasons of the year, which so much affect surface waters, have no effect upon the water buried in the deep recesses of the earth."

(To be continued.)

## Notes on Current Topics.

### Hospital Saturday Fund.

THE contributions to this fund not having been so large on the day set apart as the committee had anticipated, a resolution was come to declaring the fund open for another fortnight. The working classes appear as a whole to have contributed but very scantily. To this paucity of pecuniary interest taken by them we are pleased to observe some praiseworthy exceptions—for instance, the *employés* at Messrs. Peek and Frean's sent £80, Messrs. Shoolbred's nearly that amount; £92 were collected from the *employé* of the London and South-Western Railway, and so on. But the greater portion of the fund appears to have been subscribed by the employers of labour, the wealthy, and by gratuitous performances at theatres, the latter item being headed by Mr. Chatterton, lessee of Drury Lane and other theatres, by £330. Altogether the amount collected up to the time of our going to press is about £3,500. As we have before pointed out, the committee have incurred very heavy expenses in printing, advertising, cabs, flags, uniforms, and other matters, much of which was both unnecessary and derogatory to the purpose. To defray these expenses, which would reduce the receipts very considerably, a meeting was held on Monday, at which it was resolved to invite the further contributions of the wealthy to this additional fund. Of course, the question naturally arises as to the propriety of calling the fund by some other name; it has lost its title to "The Saturday Fund," and it certainly cannot be termed a working man's fund.

THE jubilee of the Edinburgh Academy was celebrated on the 16th inst. by a banquet, at which the Archbishop of Canterbury presided.

### Alcoholism among the Easy Classes.

DR. LEUDET, of Rouen, mentions a series of researches made on 200 patients of his private practice in a short memoir on the above subject. One of his studies, a medical man, unfortunately a great drinker, was not contented with alcohol, but used to inhale 150 grammes of alcohol daily. He taught a servant to make him inhale it for hour hours at a time, and thus used five kilogrammes of chloroform in a year. He was attacked with gangrene of one of his toes.

Among the principal effects of chronic alcoholic poisoning among the easy classes, Dr. Leudet speaks of gout, disease of the stomach, and dyspepsia, and, according to him, affections of the liver (cirrhosis) are more frequent than among the working classes. Chronic diarrhoea, lasting for 15 or 20 years, and paralytic accidents, are mentioned, some of which may be cured by leaving off alcohol when they have not advanced too far.

Dr. Verneil, of Paris, confirms the assertions of Dr. Leudet, and notices that the administration of chloroform often shows that persons beyond suspicion have been secretly addicted to alcohol. It is always more or less dangerous to give such persons chloroform, on account of the tendency to congestion of the lungs.

### Charity Organisation.

WE find in the *St. Louis Medical Journal* a protest against the monstrous abuse of charity in that city, which it would be well if London hospital administrators would "inwardly digest." There are thousands and tens of thousands of people in our large cities, says our contemporary, who, if they can get medical attendance and medicines gratuitously when sick, and quarters in hospital if disabled by accident or disease, will never provide for a day a-head, but spend half their earnings at dram-shops. The more charity, the more left for whisky; and the more whisky, the more charity needed; until the city is given over to saloons and charity-institutions; one-half of the population engaged in making drunkards, and the other half working hard to take care of them.

Could any statistician tell us what fraction of each £1 given in London medical charity reaches a really deserving object? Perhaps if he would first write off, say 8s. for establishment charges, from which the poor man benefits little or nothing; then 40 per cent. of the remainder, say 5s., for aid given to well-to-do shopkeepers and the opulent middle-classes; then 50 per cent. of the remainder, or say 3s. 6d., for those who are paupers by their own wilful act, and deserve neither sympathy nor assistance,—possibly half-a-crown in each pound (and we are inclined to think much less) remains for the destitute sick, who would make prudent provision for their illness if they could, and are prevented from doing so either by their poverty or other reason beyond their own control.

### The Medical Council.

WE understand that Professor Humphry was last week elected to the vacancy on the Executive Committee caused by the elevation of Dr. Acland to the Presidency of the Council in July last. At the next meeting of the Execu-

tive Committee, which will probably take place in about ten days, it is expected that the visitors of examinations will be chosen from the various licensing bodies, who have in most cases sent in the names of gentlemen willing to fill the office.

### Triple Paralysis of Eyeball from Syphilis.

DR. A. FOURNIER (*Ann. de Derma. et de Syphil.*, v. 5), in 1873, observed a young girl affected with syphilitic palsy of the eyeball, which gave her a very curious aspect. She had suffered for four years from syphilis, and had not had any treatment. Disorders in her speech dated four months back, and appeared after violent nocturnal headaches, to cure which the patient took a few mercurial pills. On the right side there was seen paralysis of the third pair, manifested with its classical and usual characteristics (drooping of the upper lid, inability of looking upward, downward, or inward, considerable dilatation of the pupil). On the same side there was paralysis of the sixth pair, so that the movement of the globe outwards was absolutely abolished. On the left side there was simply paralysis of the sixth. The young woman was quite well in other respects.

The prescription was: Daily friction with four grammes of double mercurial ointment, gargle with chlorate of potash, three tablespoonfuls of syrup of the iodide of potassium, made with thirty grammes of the iodide in 500 of water, sulphur-baths; afterwards, the dose of the iodide was doubled, and that of the ointment made four-fold.

The ocular lesions were perfectly cured, but further on there was a new syphilitic manifestation—an ulcerated gummy tumour of the left leg, testifying to the intensity of the disease.

The author concludes his note with the following observation: "The interest of this case resides in the multiplicity of the paralytic disturbances presented by the patient. Three nerves were affected in her (the sixth pair on the left side, the sixth and third on the right), and these three nerves were affected by the syphilitic affection, as the evolution of the disease evidently demonstrated, and the result of the specific treatment. Now, this union of multiple paralysis is worthy of being remarked. It is observed more perfectly in syphilis than in any other disease; it has, therefore a diagnostic value.

### Determination of Sex in Utero.

THE *Chicago Medical Examiner* has an interesting paper from Drs. A. B. Strong and D. Steele, containing the results of careful examination of 100 pregnant females, with a view to test the truth of the recently proposed method of determining the sex before birth. They found that in the majority of cases the male heart was slower—that 132 per minute was the average dividing line—that above this 53 per cent. were females, and 27 per cent. males; while below it 63 per cent. were males and 20 per cent. females—that repeated observations were required for the purpose of accuracy—that the last month of gestation was the best time for observation, that the heart's action was increased in rapidity in proportion to the feebleness of the foetus, and that a diseased condition of the

placenta might be diagnosed in some cases. The report concludes as follows:—

"As regards the artificial divisions of the uterine tumour given above, we found the foetal pulsations most distinct in the left lower quarter in thirty cases, in the left upper quarter in five, and in the right upper quarter in three, the latter all cases of breech presentation. All the others were vertex, forty-one in the first position, and six in the third. If the foetal heart be heard most distinctly above the imaginary transverse line, the presentation is most likely that of a breech; if below the line, it is almost certainly a case of vertex presentation. Inspection and palpation, however, afford valuable information in the determination of the foetal position, and exclusive reliance should not be placed upon auscultation.

"In conclusion, it may be generally stated that we find an opinion as to the sex of the child, founded on the rate of the foetal pulse, to be of little more value than a guess, while the presentation, generally, and the exact position, possibly, may be accurately determined."

### The Action of Veratrum Viride upon the Circulation.

THE *Philadelphia Medical Times* contains a series of important experiments on this subject by Drs. Wood and Berens, from which they deduce the following conclusions:—

The action of this alkaloid upon the circulation is altogether subordinate to its influence upon the respiration.

In minute doses it stimulates the cardiac inhibitory nerves or nerve-centres, but when given in sufficiently large doses it finally paralyses the peripheral inhibitory cardiac nerves.

It exerts some action upon the heart-muscle or the contained ganglia; this action is probably a sedative one, but it is very feeble, and is only distinctly perceptible when the drug is precipitated at once upon the heart, or when the dose given is much above that required to arrest respiration. To kill the heart-muscle very large amounts are required.

Upon the vaso-motor system veratroidia acts as a depressant, but its influence is feeble, much less intense than its action upon the pneumogastriacs. When artificial respiration is maintained, it can be given in such doses as to paralyse the vaso-motor centres.

### Artificial Production of Actinism.

DR. H. VOGEL has lately made a singular and interesting discovery in actino-chemistry, namely, that the non-actinic rays may, under certain circumstances, be made actinic. He has found, says the *Photographic News*, that bodies which absorb the yellow ray of the spectrum make bromide of silver sensitive to the yellow rays. In like manner, bodies which absorb the red ray of the spectrum make bromide of silver sensitive to the red rays. For example, the addition of *corallin*—which absorbs the yellow ray—to a bromide of silver film renders it as sensitive to the yellow ray as to the blue ray. The discovery is one which will doubtless prove to have important practical bearings.

### Sal-Ammoniac as a Febrifuge and Sedative.

*L'Union Médicale* refers to a series of cases communicated to the Société de Thérapeutique by M. Martineau, which tend to show the value of sal-ammoniac in acute rheumatism, the results of which are noted in the *Philadelphia Reporter*. Some cases are said to have been cured

and in others the pulse and temperature decreased after the medicine. Dr. Lupeyrère, in *La France Médicale*, gives some further notes on the subject. He states that Delieux de Savignac found daily doses of half a gramme too feeble, and gave from four to ten grammes. He carried the quantity per diem to fifteen grammes in divided doses, for the relief of nervous headache. Dr. Burrillen, of Toulon, in the *Bulletin de Thérapeutique*, has related many cases cured by three doses of one gramme each, given at intervals of half an hour. Some English physicians have used the drug successfully in nervous affections. Delieux de Savignac has used it both externally and internally in gout, as well as acute rheumatism, and says it diminishes both pain and fever. It may be dissolved in any of the waters of the Pharmacopœia. Its trial is advised in doses of five, ten, and fifteen grains.

### Importance of Urinary Casts.

DR. CHARCOT (*Le Progrès Médical*, Sept. 19th) says that, as a general remark, it may be said that the clinical importance of urinary casts has been much exaggerated. They are not, as has been said, faithful messengers, announcing to the clinical observer the anatomical state of the kidney, or mirrors reflecting the different renal affections. Formed in the latter end of the uriniferous tubes, they can only give information as to the state of these parts; and cylinders formed in the twisted parts of the tubes cannot pass into the urine.

MR. JESSEP, of Sheffield, has offered to the Committee of the Hospital for Women a site on which he proposes to build a new hospital for the town, at a cost of £12,000.

DRS. LATHAM and BRADBURY are candidates for the Downing Professorship of Medicine, vacant by the decease of Dr. Webster.

DR. GRAILY HEWITT has been elected an Honorary Corresponding Member of the Philadelphia Obstetrical Society.

A BARONETCY is talked of for Dr. Arthur Farre, the physician-accoucheur present at the confinement of the Duchess of Edinburgh, and who has officiated on several occasions of the kind in the charmed circle of royalty. We should welcome such a recognition of his services; but there are others also to whom such honours ought to be extended. We have more than once spoken of this.

ACCORDING to the Registrar-General's return, there were 2,383 births and 1,344 deaths registered in the metropolis last week. The births exceeded by 51, and the deaths were 97 below the average numbers. The death-rate, which had in the three previous weeks been equal to 17, 18, and 19 per 1,000 of population, rose last week to 21.

THE proposed testimonial to Dr. Sedgwick Saunders, Medical Officer of Health to the City of London, for his unwearied exertions to found a free library for the citizens, will soon assume a tangible form. The committee who have undertaken the collection of contributions met



at the Mansion House on Tuesday week for the transaction of business, but a journeyed for a month, to await the result of an important movement for the same object commenced in the ward which Dr. Saunders represented for many years in the Common Council.

## Literature.

### WEST RIDING ASYLUM MEDICAL REPORTS. (a)

THERE can be no question that the West Riding Asylum is the centre of psychological medicine in this country, and has done more in recent years for neuro-physiology and pathology than perhaps any other institution of the kind in Europe. It has become a celebrated school for the training of those who are desirous of entering that special department of practice which is concerned with the treatment of diseases of the mind. It has been constituted a rallying point for the whole medical profession in the district in which it is placed, and it has contributed much valuable information to our knowledge of cerebral action, normal and abnormal. It has done all this, too, without failing in any jot or tittle of that law of humanity and order which now happily regulates the administration of our lunatic hospitals. Pre-eminent in its scientific work which it has accomplished, it has in no degree fallen behind in its general condition. We gather from the Reports of the Commissioners in Lunacy that as regards the domestic comforts of the inmates, the employments and amusements provided for them, the discipline of its staff, the cleanliness and comeliness of its wards, and the whole economy and efficiency of its management, the West Riding Asylum is fully on a level with the best asylums in this country; and we can therefore congratulate the medical officers of that establishment on the demonstration which they have afforded that a diligent pursuit of scientific medicine is not incompatible with a due attention to moral and financial government.

The volume of Medical Reports which now lies before us is the fourth of an annual series, which we are glad to learn is now securely established. Undismayed by the difficulties and discouragements which beset the commencement of this undertaking, Dr. Crichton Browne and his colleagues have persevered in their work, and have raised the yearly record of their professional researches into a position of well-merited distinction and prosperity. They have provided the only periodical of which this country can boast devoted to the physiology and pathology of the nervous system, and they have concentrated in that periodical an amount of ability and industry which gives to its pages an incalculable value. Year by year these Medical Reports have improved in quality and risen in estimation, and it may be safely asserted that the issue for the present year is a most important and interesting addition to medical literature. Of the twelve papers which it contains, none can be regarded in the light of padding. All are replete with original observations and with practical suggestions. The first of them, from the pen of Dr. Carpenter, is a critical examination of the physiological import of Dr. Ferrier's experimental investigations into the functions of the brain. It is really an extended version of the address which Dr. Carpenter delivered at the medical *conversazioni* at the West Riding Asylum last winter, and must be read with careful attention by all those who desire to keep abreast of modern physiology. In the main, Dr. Carpenter accepts Dr.

Ferrier's conclusions, and does not attach much weight to the cavilling objections which have been made to them. Some of Dr. Ferrier's positions he most ably and ingeniously illustrates. Upon one or two points, however, we believe we detect a divergence between the views of Dr. Carpenter and those of Dr. Ferrier.

The second paper is on "A Case of Recovery from Double Optic Neuritis," and is illustrated by two admirable chromolithographs by Burgess. The case shows in a striking manner the value of the ophthalmoscope to the physician and the remarkable power of accurate prediction which Dr. Hughlings Jackson has attained in nervous diseases. It demonstrates that sight may be good when there is extreme optic neuritis, and that the neuritis may disappear, the disc resuming what is practically a normal appearance. Incidentally, Dr. Hughlings Jackson takes occasion to point out that optic neuritis from syphilitic disease of the brain is not syphilitic optic neuritis.

The third paper—which is by Professor Ferrier, and is entitled, "Pathological Illustrations of the Brain Function"—has a peculiar interest, as it is a practical application of its author's recent discoveries to the explanation of the facts of disease. Five fatal cases of organic disease of the brain are reviewed in it, and their symptoms are shown to have been in perfect harmony with the results of experimental inquiry. While commenting upon these cases, Professor Ferrier makes a most telling rejoinder to Dupuy, Curvillat, and other critics, and corrects certain misapprehensions which have been formed as to his views.

Following Dr. Ferrier's essay is one by Dr. John Merson upon "The Urinology of General Paralysis." This is a most clear and careful production, and at once marks out Dr. Merson as a man of great capacity and high attainment. The principal conclusions arrived at are that in general paralysis the quantities of urea and uric acid in the urine are considerably increased, while the quantities of chlorides and phosphoric acid are notably diminished, and that under the influence of calabar bean and alcohol during the progress of that disease there is a large diminution of all the solid constituents, and especially of the urea.

The paper by Dr. Milner Fothergill on "Cerebral Anæmia," which follows Dr. Merson's, although the longest, is perhaps the least meritorious in the volume. There is an air of speculation about it that suggests the library rather than the bedside, and betrays a vigorous imagination as yet inadequately disciplined by the tedious routine of facts. It is, however, what would be called an eminently readable article, and is so discursive that it ranges from Middlesmarch to Virchow and from Darwin to Mrs. Dombey. It includes excellent observations upon local cerebral anæmia, and some shrewd hints as to treatment.

In the sixth paper Dr. W. T. Benham discusses the therapeutic value of the application of cold to the head, and gives good grounds for his belief that that value has been exaggerated. His experiments have been ingeniously devised and patiently executed. Those with Ludwig's Stromuhr are especially instructive.

Dr. Lauder Brunton's essay upon "Inhibition Peripheral and Central" is an inquiry into the operation of the will from the physiological side, and will not be less attractive to metaphysicians than to practical men. It is certain to be closely studied, and to be frequently referred to as the ablest exposition which has been attempted of an obscure topic.

Mr. Major's annual essay upon "Cerebral Histology" is looked forward to with interest by all those who are engaged in microscopic researches. Mr. Major is recognised as an intrepid

(a) "West Riding Asylum Medical Reports." Edited by J. Crichton Browne, M.D. Vol. IV., 1874. Smith, Elder, and Co., London.

original investigator in those remote polar regions explored by few, in which the conscious needle turns, but, as we fear, is never to be nailed. His work is eminently accurate and honest, and his inferences are fair and cautious. This year he describes his observations in senile atrophy, and enumerates changes in the cells, fibres, vessels, and neuroglia, pointing out that, although none of these changes is individually destructive of senile atrophy, yet the grouping of them is essentially characteristic of that condition. He has discovered that the cells in the focal brain are uniform in size, circular in form, and entirely destitute of branches.

After Mr. Major's paper comes one by Mr. Lawson on "The Hourly Distribution of Mortality in Relation to Recurrent Changes in the Activity of the Vital Functions." This essay has a statistical basis, and possesses both literary and scientific merit. It demonstrates the existence of a law regulating the hours of maximum and minimum mortality. Next comes a careful clinical study of acute dementia from the powerful pen of the editor, Dr. Crichton Browne, accompanied by a characteristic heliotype portrait; and following that again there is a paper upon ophthalmoscopic work performed by Mr. Charles Aldridge. The volume is brought to a close by some novel observations on the actions of nicotine, by Dr. W. T. Benham, who has discovered that that agent has the power of producing contraction of the pupil, whether applied topically or taken internally.

Altogether, this collection of essays, which we have merely enumerated, is a most noteworthy one. That it should proceed from a provincial medical institution is remarkable, and truly honourable to those who guide and govern that institution.

#### ARCADIAN WALKS AND DRIVES IN THE NORTH-WEST SUBURBS OF LONDON. (a)

THE author has for many years recommended muscular exertion to his patients, and knowing how irksome exercise for exercise sake becomes, has prepared a pocket guide to the pleasantest walks and drives within reasonable distance of the North and West Londoner, telling his readers how to walk, which way to go, and what to look for, in a pleasant chatty style.

#### ILLUSTRATION OF THE LITERATURE OF QUACKERY.

THE August number of the *Chicago Pharmacist* contains the following editorial comments on the address on this subject delivered by Henry Gibbons, M.D., before the California State Medical Society, and which we lately republished in this country. The comments of the *Pharmacist* are thoroughly American, but none the less interesting and instructive; moreover, they show the real value of Dr. Gibbons' address, and make us feel the more gratified at having made it known in this country:—

We call the attention of our readers to the address, so that they may view the topic through the spectacles of a medical editor, teacher, and practitioner. As far as Dr. Gibbons has "illustrated" the subject, just so far it is good and truthful; but we sincerely regret that so fearless and able a writer as the author of this essay should have omitted mentioning the part the medical profession and its press play in the drama of Quackery.

We claim that the medical profession of this country is to a great extent responsible for the existing evil, and to substantiate our charge we will enumerate—first, the prescribing of nostrums by the medical profession, the composition of

which they have not the remotest knowledge of; secondly, the giving of certificates of merit to the manufacturers of nostrums; thirdly, that the medical press of this country, with but few laudable exceptions, assist the use and sale of nostrums by inserting into the pages of the reading matter (styling it usually selected matter), month after month, cases of diseases which have been successfully treated by the use of this or that nostrum. These cases are written up by some "medical hireling" in the employ of these nostrum compounders, and the medical journals receive a money consideration for their insertion.

To prove the first charge we have made, it is only necessary to consult the prescription file of any dispensing pharmacy, where can be found prescriptions from regular graduated physicians for such nostrums as McMunn's Elixir of Opium, Bromo-Chloralum, Elixir Iodo-Bromide of Calcium Compound, Cincho-Quinine, &c.

Secondly, on examining the wrappers attached to these nostrums, the names of physicians will be found endorsing the merits and the composition, the latter of which they are certainly ignorant of.

Thirdly, the medical press of this country has become, with few honourable exceptions, the aider and abettor of this species of fraud, by inserting among the reading matter paid "puffs," which seem to the uninitiated medical practitioner as *bona fide* reported cases of disease successfully combated by means of this or that nostrum, when in reality it is written up by the man "Friday" of the nostrum houses, and by them sent to the different medical journals from month to month, paying a consideration for each insertion.

That this aiding of Quackery is not confined to the "little fish" of the profession, we will prove by referring to the present President of the American Medical Association, Wm. Bowling, M.D., of Nashville, Tenn., who is editor and proprietor of the *Nashville Journal of Medicine and Surgery*, late President of the Meeting of American Medical Editors, and Emeritus Professor of the Theory and Practice of Medicine in the Medical Department of the University of Nashville.

This gentleman, whom we have alluded to as holding these different prominent positions in the medical profession, inserted in the June number of his journal a "puff" for the well-known nostrum, Cincho-Quinine.

For this insertion he received, no doubt, the usual compensation from the manufacturers of this nostrum. Now, we ask, what prompts men in such positions to sell themselves for such base purposes? It is certainly unprofessional, and cannot be styled honourable for one who professes to be a leader of the science of medicine, and be guilty of such an offence against its progress.

Dr. Bowling and other editorial colleagues who are guilty of this transgression certainly cannot claim ignorance on this subject. How does this agree with Dr. Bowling's questions on professional ethics, published in his journal for July? Did the Doctor, in his annual address as President of the American Medical Editors' Association, touch upon the subject of advertising nostrums by the medical press?—the address is said to have been both "suggestive and timely"—or did it only refer to the more important medical topic, "Katy did, and Katy didn't?" Come, Doctor, step to the front; tell your readers you have been "naughty" for "filthy lucre's" sake, and you have thought the matter all over, and promise for the future to mend your evil ways. It shall not be said that Dr. Bowling "*knew the right, yet still the wrong pursued.*"

#### Mendacity of Quacks.

If Satan has ever succeeded in compressing a greater amount of concentrated mendacity into one set of human bodies above every other description, it is in the advertising quacks. The coolness and deliberation with which they announce the most glaring falsehoods are really appalling. A recent arrival in San Francisco, whose name might indicate that he had his origin in the Pontine marshes of Europe, announces himself as the "Late Examining Physician of the Massachusetts Infirmary, Boston." This fellow has the impudence to publish that his charge to physicians in their own cases is \$5 00! Another genius in Philadelphia, of the bogus diploma breed, who claims to have founded a new system of practice, and who calls himself a "Professor," advertises two elixirs of his own make, one of which is for "all male diseases" and the other for "all female diseases." In the list of preparations which this wretch advertises for sale as the result of his own labours and discoveries is *Ozme*!—*Pacific Medical and Surgical Journal*.

(a) "Arcadian Walks and Drives in the North-West Suburbs of London." By W. A. Johnson, M.D., London. Pp. 230. 1874.

## Correspondence.

### BATHING QUARTERS ON THE STRAITS OF DOVER.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—I found in your impression of September 30 some very interesting remarks by my friend and former colleague Dr. Drysdale, who signs himself "Hygiene," upon my adopted sea-side home. As he appeals to me for some information as regards the hygienic state of Boulogne, and as I am in a position to forward him the same, I can only add before I begin my remarks that I am infinitely obliged to him for eliciting from me some facts and figures which will not only go far to establish our town as the "Queen of French watering-places" in the eyes of the profession, but also in those of the numerous visitors who annually visit our *ville de plaisance*.

To begin with, I beg to inform "Hygiene" that diarrhoea and adynamic diseases do not exist in the lower part of the town more than they ought to do, any more than they ought not to do in the haute ville.

Boulogne is decidedly a very healthy place to live in—I say to live in because I believe until one gets acclimatised, the atmosphere, with its frequent changes of temperature, is very trying, especially to persons suffering from diseases of the chest.

As regards a bathing resort, I will only state the number of baths taken in connection with our charming Etablissement des Bains from June 15 till September 30: The warm and douche baths numbered 7,000; swimming baths, 12,500; in the sea, 69,000—total, 98,500; and there are two other bathing établissements on the sands. These figures speak for themselves.

Our death-rate is a very low one, and considering the number of factories surrounding Boulogne, accidents are very rare indeed. Some of the factories employ 800 to 1,000 hands, and yet during the past twelve months there has scarcely been any serious accident brought to the Hôpital St. Louis.

And now about the vexed question of the drainage: I admit that there is not a pleasant odour at low-tide from the bed of the Liane along the quays; and also that there exist at the present time several outlets from all parts of the town at various parts of the harbour and river. Notwithstanding this, I do not believe we have more epidemics (typhoid fever, for instance) near the river than in the upper town.

On Thursday last I had an interview with M. de Poilly, the chief engineer of Boulogne, and he was kind enough to inform me of some prospective drainage arrangements, and show me the plans. That these will be carried out there is no doubt, as the money is voted, and all ready to begin operations. The authorities have not yet set to work, because they want to combine with the main drainage a thorough good system of water supply, and are anxious to make one loan only—viz., of 2,000,000 francs. Should the water supply question, however, fall through, the drainage one is certain.

And, now, what is the system? you naturally ask. To carry a large drain from below the abattoirs on the Liane all along the quays, to pass in front of the Pavilion Hotel, and be carried out to sea beyond the old fort on the way to Calais, or to pass alongside the East Jetty, and so carried out to sea. I much prefer the former plan, because of the bathing.

I trust, Sir, I have now satisfied "Hygiene" with my answers to his questions.

The "feature in Boulogne peculiarly agreeable to the medical mind," Jenner's statue, was erected on the quay during the mayoralty of Dr. Lirois. Was there *never* one in London? I thought so once, in Trafalgar Square, where there are Lions of another sort.

I am, Sir,

Yours faithfully,

SIDNEY CHATER,

### "THE STUDY OF LIFE:" A MEDICAL REVIEW.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—Having seen in a contemporary this day a notice of my pamphlet on "The Study of Life" (which, by the way, as a reprint of a single lecture delivered before a popular audience, I did not fancy would have excited the outburst of splenetic zeal displayed in four pages of a review in a scientific journal), I was struck by the following passage: "Even in purely medical matters we find the most extraordinary statements, as that the most fatal form of jaundice is produced by mental depression, and that the posterior staphyloma which causes myopia is an affection of the optic nerve and retina," which he looks on as "*startling*." I would simply refer the writer, in the first instance, to any modern authority, and he will find such "extraordinary" statements in abundance. I merely select the chapter on liver diseases, in Watson, though, as of course is well known, Budd described the post-mortem appearances, and the pathological changes which mental shock produces in this organ, in cases of death, and the immediate cause of rapid delirium, convulsions, and coma in such instances. But such a statement, though it "*startled*" the reviewer, would not have surprised even a student of Cullen, who wrote of the "*Pathemata Mentis*." But he perhaps objects to my ideas of its *fatality*; he certainly may have suffered from some myopic abnormality (and this, after all, is rather a charitable view of his ignorance) when he studied the diseases of the liver, or it may be he himself suffered from some temporary derangement of this organ, so that when writing he took a slightly jaundiced view of matters. In addition to any mild cholagogues which may suggest themselves to his mind, I venture to remind him of these quotations from Sir Thomas Watson: "Fits of anger, of fear, and of alarm, have been presently followed by jaundice." He instances the case of an unmarried female, who, on its being accidentally disclosed that she had borne children, became suddenly yellow; and also that of a medical student, who got intense jaundice in connexion with an examination. Adding this "*extraordinary statement*," there are scores of instances on record to the same effect, and this is observable of such cases, "that they are often fatal, with head symptoms;" and, more extraordinary still, he says "the prognosis of jaundice is generally favourable, *except when it depends upon structural disease of the liver, or great mental or bodily shock*." In both these cases the prognosis is bad or doubtful. "Over this secretion," says Dr. Aitken, "the mental state seems to exercise a very remarkable influence, so much so, that mental emotion, favouring congestion of the organ, favours the stoppage of the secretion;" and he gives as causes of "acute yellow atrophy of the liver," "mental distress" and "nervous depression," of which Niemeyer writes, "It is doubtful if it ever ends in recovery." Strange that the reviewer never appears, then, to have heard of any of these "*extraordinary statements*." The other "*startling statement*" which I made to a popular audience, whose keen appreciation of terms was not supposed to have reached the distorted proportions, which it evidently has assumed in the writer's mind, though it is clear from his review that he has some doubts as regards his own mental relationships, was simply, that "the 'abnormality' of the optic nerve existing in a short-sighted person is recognisable with the ophthalmoscope, and that it is an hereditary affection appearing (as posterior staphyloma) in several members of the same family." I simply refer him to the latest edition of Wells for a verification of this "*startling*" sentence. Soelberg Wells says: "Myopia is frequently congenital, and often hereditary, and its existence may also be sometimes traced back through several generations, increasing perhaps somewhat in degree in each successive generation. It may also occur in several members of the same family. The most frequent cause of myopia is an abnormal increase in the length of the eyeball in its antero-posterior axis. This extension occurs chiefly at the posterior portion of the globe, and may give rise to a more or less considerable ovoid bulging (posterior staphyloma), which is accompanied by thinning and atrophy of the choroid and sclerotic. But even if this should not be present, the ophthalmoscope often reveals a hyperæmic and congested condition of the optic nerve and retina." . . . "The optic disc (says Bader), like the adjoining distended tunics, is pushed backwards and displaced towards the inner wall of the orbit. Its position is altered. In the healthy eye the tunics are thickest round the optic

nerve ('round the optic disc'). The attachments of the nerve to the tunics are particularly strong. In the myopic eye the tunics, especially at the outer margin of the optic disc, and, in high degrees of myopia, all round the nerve, are abnormally thin." "The optic disc, as a rule, appears smaller than that of the emmetropic eye. The curvature of its surface on the side adjoining the 'crescent' is flat, or may be cupped. It is unusually convex on the opposite side. The shape of the disc is frequently oval, the long axis of the oval being vertical. The optic disc may in reality be round but appear oval." "The optic disc rarely has the natural colour throughout. Often it is too red (a hyperæmia which generally accompanies rapidly progressing myopia), or it has a greyish-pink colour." "The vessels of the retina, where they pass through the optic disc, are rarely quite like those of the emmetropic eye. They are too numerous in rapidly-increasing myopia." I could myself furnish the "startled" critic with notes of hundreds of cases of congenital myopia, attended with "abnormal states of the optic disc and retina." I added that "it would be curious to dwell on the influence which, in the life-time of an individual, lesions in the nervous apparatus of the senses might entail." I did not fancy that before long I would have afforded me so apt an illustration and source for reflection as the author of this review, whose amusing waste of time and paper on a short published discourse on a subject causing a good deal of interest at the present time can only, in my mind, arouse a feeling of pity for the doubtless enforced idleness that prompted so lengthy a dissertation. Other passages there are, not connected with "medical matters," which I might notice, but "*ex uno disce omnes*."

I remain, Sir,

Yours faithfully,

H. MACNAUGHTON JONES.

4 Camden Place, Cork, Oct. 5th, 1874.

## Obituary.

MR. JOSEPH SWAN, F.R.S.

THE death is announced of the Senior Fellow of the Royal College of Surgeons of England, Mr. Joseph Swan, F.R.S., who died at Filey, aged eighty-three. Mr. Swan became a member of the College in 1813, and for some years held the post of surgeon to the Lincoln Hospital. He was the successful competitor for the College Triennial Prize on the first two occasions of its presentation—namely, in 1822 and 1825. The subject of the first essay was "A Minute Dissection of the Nerves of the Medulla Spinalis from their Origin to their Terminations, and to their Conjunctions with the Cerebral and Visceral Nerves; authenticated by Preparations of the Dissected Parts;" and of the second—"A Minute Dissection of the Cerebral Nerves from their Origin to their Termination, and to their Conjunction with the Nerves of the Medulla Spinalis, and Viscera; authenticated by Preparations of the Dissected Parts." Subsequently appeared his well-known "Demonstrations of the Nerves of the Human Body, in 25 plates," published in 1830 in folio, and in 1834 in quarto; and his "Illustrations of the Comparative Anatomy of the Nervous System," 1835. In 1819 he was awarded the Jacksonian Prize for an essay on "Deafness and the Diseases and Injuries of the Organ of Hearing," and the same prize in 1819 for an essay on "The Treatment of Morbid Local Affections of the Nerves." His "Treatise on Diseases and Injuries of the Nerves" appeared in 1834; in 1853 a series of plates of the brain; and in 1864 "Delineations of the Brain in relation to Voluntary Motion," a series of lithographs drawn from his own dissections.

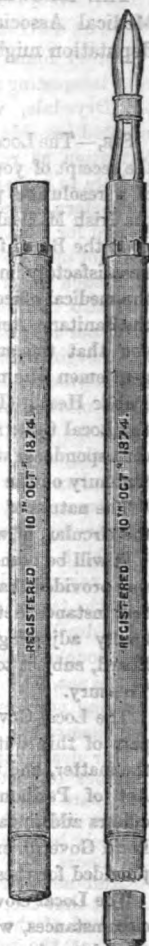
## A Novelty in Post-mortem Examinations.

At a meeting of the New York Pathological Society (*Medical Record*), Dr. Janeway proposed a new method of examining the abdominal organs without opening the cavity. This was by the introduction of the hand per rectum, and bringing away any parts within reach. In one reported case the liver and kidneys had been satisfactorily inspected by this means, without violating the injunction of the friends not to open the body.

## New Inventions.

### THE "PEN" VACCINATOR.

UNDER this name Messrs. Maw, Son, and Thompson manufacture an ingenious little instrument, which has been invented by Dr. R. Harvey Hilliard. Most of the little weapons specially made for vaccination rather overdo their work, and very few, if any of them, contain sufficient charges of lymph for a school or a good-sized vaccinating station. It is also well known that the common bleeding lancet, especially if used to make a little pocket or valve for the lymph, is very apt, with a lively and plunging child, to draw blood, which is objectionable for many reasons. The instrument shown in the figure consists of a sort of drawing-pen, like those sold in mathematical cases, made of a hard, clean, incorrodible metal, between the blades of which there is room for lymph enough to vaccinate at least a dozen children. When not in use it shuts up into its case, which, being close-fitting, constitutes a moist chamber. The other end is a reservoir for capillary tubes—either empty or charged with lymph—all ready for use. To use the pen for vaccinating, it is reversed, and being held in the hand like a pen or pencil, is used to make a scratch, which does not draw blood, but lodges the lymph at the same time. For greater certainty, a second scratch may be made as right angles, or nearly so, to the first, like a Roman X. It is also a capital instrument for arm to arm vaccination, as it charges itself by the "capillary" attraction between the blades of the pen, or it may be used simply to puncture the vesicles and charge Dr. Husband's tubes. It looks nice, is very portable and efficient, and does not frighten either baby or his mamma.



### Sponge retained in Stump after Operation.

*Le Mouvement Médical* mentions the case of a man who entered a hospital in Paris with a large granulating ulcer on the stump of his leg, consequent on amputation four months previously, in the reign of the Commune. On examination, a sponge was found imbedded in the granulations. It had been applied as a hæmostatic in the amputation and carelessly left in.

### Saccharated Calomel contains Corrosive Sublimates.

DR. POLK, of Philadelphia, in the *Medical Times*, calls attention to the fact that corrosive sublimate is developed when calomel is rubbed up with sugar. He administered ten grains a month after its preparation, with such poisonous effects as led him to test the compound, with the result as stated. He quotes from Valpius, who says: "When calomel is mixed in powder with white sugar, or calcined magnesia, or bi-carbonate of soda, corrosive sublimate is formed in twenty-four hours. Rather large quantities are formed in powders composed of calomel, white sugar, and bi-carbonate of soda." We believe it is the general opinion among practitioners that the increased activity of the saccharated calomel, which, by the way, is an old remedy, depends on the increase of surface caused by its diffusion. But the development of the chloride puts a serious face on the matter.

## THE RELATION OF THE IRISH LOCAL GOVERNMENT BOARD TO SANITARY SALARIES.

THE following letter has been received by the Irish Medical Association in response to their request that a deputation might wait on the Local Government Board :

Local Government Board, Dublin,  
13th October, 1874.

SIR,—The Local Government Board for Ireland acknowledge the receipt of your letter of the 10th instant, forwarding copy of a resolution passed at the last meeting of the Council of the Irish Medical Association, appointing a deputation to wait upon the Board for the purpose of representing to them the unsatisfactory manner in which it is proposed to remunerate the medical officers engaged in carrying out the provisions of the Sanitary Act ; and in reference thereto I am to inform you that the subject of the future salaries of the medical gentlemen who may be employed under the provisions of the Public Health (Ireland) Act is receiving the consideration of the Local Government Board, who are preparing to enter into correspondence with the Lords Commissioners of Her Majesty's Treasury on the subject.

The nature of that correspondence will be gathered from the circular, of which a copy is enclosed.

It will be borne in mind that by the Act of Parliament it was provided that the local sanitary authorities should in the first instance determine the salaries, but that the power of finally adjusting them resides in the Local Government Board, subject to approval by the Lords Commissioners of the Treasury.

The Local Government Board are prepared to perform their part of this duty with a full sense of their responsibility in the matter, and under the impression that, inasmuch as the Act of Parliament has imposed upon dispensary medical officers additional statutory duties, it is the business of the Local Government Board to see that proper remuneration is provided for these additional duties.

The Local Government Board are not aware, under these circumstances, what advantage could be derived from a personal interview with a deputation from the Irish Medical Association, but they will readily give their most attentive consideration to any suggestion which may be furnished to them by that body in a written form of communication.

By Order of the Board,

B. BANKS, Secretary.

To E. J. Quinan, Esq., M.D., Hon. Sec.  
Irish Medical Association.

## EXPOSING THE QUACKS.

THE San Francisco *News Letter* adopts a very short method with some of the unlicensed practitioners in that city, by publishing plainly a list of those *soi-disant* medical men who are trading either without any diploma or on a sham degree.

We are perfectly inundated, says the *News Letter*, with letters of inquiry and approval respecting the articles that have appeared in the *News Letter* in regard to our physicians. Those articles have brought to our knowledge an amount of charlatanism of which we had no previous conception. It is undoubtedly a most dangerous thing to send for a doctor in San Francisco unless you know who you are sending for. In view of the facts that have come to our knowledge, we feel assured that we shall be equally serving the profession and our citizens generally when we publicly ask certain men : "Have you a diploma ?" If

they have, we will give them an advertisement gratis. If they cannot answer the query, the conclusion is obvious, and the duty of their patients plain. We append a list of practising medical men, to whom we now put that question. We shall add to it from time to time.

Then follows a roll of eighteen practitioners, with the query, "Gentlemen, have you a diploma ?" in large letters, preceding the list. The *News Letter* goes on to say :—

Dr. C. T. Deane, Professor of Diseases of Women and Children, and Clinical Obstetrics, in the Medical Department of the University of California, has called upon us, and claimed to have a diploma from Giessen, in Germany. He did not claim to have any other. He never lived in Germany for any time, and *does not speak the language*. They sell diplomas in Giessen for coin. Those who think that diploma guarantees that Mr. Deane possesses skill, or even a medical education, may continue to think so.

We should be glad to know which of our journalistic leviathans would have the pluck to follow the example of their Pacific contemporary. Not one ! The temptations of well-paid advertisements and the dread of a summons and plaint are too much for their courage.

## "FIRST PLACE BY COMPETITION."

WE have seen a copy of the *Clonmel Chronicle*, in which a Dr. Sparrow—of the Queen's University and Edinburgh Double Diploma, who describes himself as "late Surgeon (first place by competition) Royal Navy"—publicly advertises that he will visit anyone for five shillings.

We can understand that a practitioner who thinks it right to take this road to practice is not likely to have appreciated, or been appreciated in, the society of gentlemen of the Royal Navy ; and we hope we shall not be wrong in predicting for him the first (and last) place in the questionable competitions with the grocers, haberdashers, and tinkers who contest with him the publicity of the *Clonmel Chronicle*.

THE State Board of Health of Massachusetts has issued circulars for the purpose of investigating certain facts in regard to the "supply of meats to large cities," and submits the following questions to a large number of British practitioners :—

1. Do you think that terror in animals produces any change in secretions or in flesh, whereby their milk or meat is rendered injurious as food ?
2. Do you know any facts bearing on this question ?
3. What do you think is the effect upon their flesh for the market, of depriving animals of food and drink for twenty-four hours, provided this be a day or two before they are killed ? or, secondly, immediately before they are killed ?
4. What diseases, and what stages of disease in animals do you think render their flesh injurious as food ?
5. Is meat rendered injurious as food by hanging in an atmosphere tainted by decomposing animal matter ?
6. What do you consider the best method of slaughtering animals for the market ?

Any facts, pamphlets, papers, or references to journals and books upon these subjects would be very gratefully received by Chas. F. Folsom, M.D., the Secretary of the Board



## THE DUBLIN INTRODUCTORIES.

THE opening of the School of the Royal College of Surgeons took place on Monday last by a lecture from Dr. Emerson Reynolds, Professor of Chemistry in the College. Dr. O'Leary, M.P., inaugurates the session to-day (Wednesday) at St. Vincent's Hospital by a discourse on the Public Health System of Ireland. Dr. Kelly will deliver the introductory at the Ledwich School, on Monday next, at 12 o'clock, and Dr. Thomson at the Richmond, on Nov. 5th. The lecture at the Meath Hospital will be given by Dr. Robt. Perse White; at the Mater Misericordias Hospital by Dr. John Hughes; and at the Catholic University, by Dr. Hayden. In the remaining schools and hospitals an introductory will be dispensed with.

## IRISH MILITIA MEDICAL OFFICERS.

It is confidently rumoured, says *Saunders's News Letter* (Dublin), that the services of the civilian medical officers attached to the different regiments of militia will shortly be dispensed with, they receiving a money allowance on the occasion according to their length of service with those corps, and that medical aid to the militia will in future be afforded by officers of the Army Medical Department doing duty with the troops quartered at or near the militia head-quarter station.

## THE SCARLATINA IN IRELAND.

THE Registrar General's returns of last week report an apparent decrease of mortality from scarlatina in Dublin, the deaths being 20 as compared with 27 last week. In Belfast there were 31 deaths from the same cause, and, of the total number of deaths in that town, 87, nearly one-half—40—resulted from zymotic. In Monaghan nine additional patients were removed last week for treatment in the Fever Hospital. In an adjoining county scarlatina has been very prevalent for some time. From Longford it is reported that the disease still continues to ravage the town and its neighbourhood, few families escaping the infection. Several mothers have been stricken with it after their children had recovered. Active measures are being taken by the sanitary authorities for the purpose of cleansing the town.

DEPUTY SURGEON-GENERAL CHARLES MURRAY DUFF, of the Madras Medical Department, died in Burmah on the 31st ult. He had served upwards of thirty-two years, and obtained the rank he held at the date of his decease in February of last year.

DR. THOMAS WILDRIDGE SHIELL, the resident medical superintendent of the Ennisorthy Lunatic Asylum, was found dead in his bed a few minutes after seven o'clock on Monday morning week. Dr. Shiell served for a considerable time in the army, and was for some years resident medical officer of the Maryborough District Lunatic Asylum.

THE next meeting of the Pharmaceutical Society of Great Britain will be held on Wednesday evening, Nov. 4, 1874, at eight o'clock. On this occasion a discussion on the "Chemical Nomenclature proper to an International Pharmacopœia" will be introduced by Mr. Thos. Greenish. The following paper will also be read: "Suggestive Notes on the Pharmacy of Amorphous Phosphorus"—Mr. Arthur W. Postans.

**Army Appointments.**—The *Army and Navy Gazette* states that Deputy-Inspector-General of Hospitals and Fleets William Loney, who has been stationed at Hong Kong since September 18th, 1872, has been appointed to Haslar Hospital, vice Nelson, whose period of service is about to expire. Dr. Loney, in addition to the lengthened term of office as above mentioned in an unhealthy colony, had previously served in the Red Sea, and has fairly earned the desirable appointment to which he has now been nominated. Deputy-Inspector of Hospitals and Fleets David Lloyd Morgan, C.B., M.D., has been ordered to hold himself in readiness to proceed to Hong Kong to relieve Dr. Loney.

## NOTICES TO CORRESPONDENTS.

DR. J. M. C.—We announced the fact some months since. Space is too valuable to repeat.

**CURIOSITIES IN LONDON POPULATION.**—One of the religious societies of the metropolis, describing London, says that the police boundaries cover 576 square miles and a population of 4,000,000 of inhabitants; that there are here gathered more Jews than there are in Palestine, more Scotch than there are in Edinburgh, more Irish than there are in Dublin, more Roman Catholics than there are in Rome, and that there is a great variety in the languages spoken. There is a birth in London every five minutes, and a death every eight minutes.

DR. WILLIAMS had better write to the publishers.

**ROYAL COLLEGE OF SURGEONS OF EDINBURGH.**—A list of the office-bearers recently elected will be found on reference to our advertising columns.

MR. D. M.—The gentleman named in your note has left this country for a short time.

DR. H. G.—The work has not yet been received for review.

OUR INDIAN CORRESPONDENT'S LETTERS shall appear in our next.

**SCARCENESS NUMBERS.**—The Publisher will be glad to purchase clean copies of January 14th and June 3rd, MEDICAL PRESS AND CIRCULAR of this year, or to supply any others in lieu thereof, on application to the London office, King William Street, Strand.

MR. G. DEPRUNET.—We are not aware that the the Tincture of Boldo mentioned in our last can be obtained in London. Try at some of the leading houses—Squire's, Savory Moore and Co.'s, Corby's, Bell's, &c. We will also try to ascertain, and let you know per post.

**DOCTORS AND WORKING MEN.**—In the Antipodes, as at home, the working classes are pushing their demands for high wages and little for it to the extreme. On Monday the *Times* published an extract from a private letter of a practitioner in Australia, which we reproduce; it is this: "I have to attend working men's clubs, and these clamorous advocates for eight hours a day and high wages don't scruple to condemn us doctors to fourteen hours a day, and pay 3s. a week to attend themselves and their families up to 18 years of age." But then, of course, doctors were made for work, and working men to skulk.

## THE LONDON SOCIETIES.

WEDNESDAY, Oct. 28th.—Hunterian, 8 p.m. Mr. Hutchinson, "On the Reasons for considering Rheumatism a Disease of the Nervous System."

MONDAY, Nov. 2nd.—The Medical. The first general meeting.

TUESDAY, Nov. 3rd.—Pathological, at 8 p.m.

## BOOKS, PAMPHLETS, AND MEDICAL JOURNALS RECEIVED.

A Practical Treatise on Eczema. By McCall Anderson, M.D.

London: J. and A. Churchill.

Pathological Anatomy of the Nervous Centres. By E. L. Fox, M.D.

London: Smith, Elder, and Co.

The Indian Medical Officer's Vade Mecum. By C. R. Francis, M.B.

Calcutta: Wynnan and Co.

Report of the Geographical Distribution of Fever. By Alfred Haviland, F.R.C.S.

Selected Remedies. By E. A. Kirby, M.D.

The Shipwrecked Mariner.

Persecution for Opinion in Medicine.

Note sur un Moyen Simple de distinguer la Mort Vraie de la Mort Apparente. Par le Docteur Ange Monteverdi.

El Anstero Anatomico Espanol. El Movimiento Medico. El Pabellon. La Tribune Medico. Journal de Therapeutique. The Clinic, Le Courier Medico. Guy's Hospital Gazette. Students' Journal. Irish Hospital Gazette, &c., &c.

## VACANCIES.

Middlesex Hospital. Resident Physician's Assistant and a Resident Obstetric Assistant. Applicants must address Mr. H. M. Evans, at the Hospital. (See Advt.)

St. George's, Hanover Square, Dispensary. Resident Medical Officer. Salary, £150 per annum, with residence. Candidates must send copies of testimonials with their applications to the Secretary, Mr. Leah, 73 Park Street, London, W. (See Advt.)

Royal Free Hospital, London. Junior House Surgeon, for a term of six months. Board and residence provided. (See Advt.)

Jersey General Dispensary. Resident Visiting and Dispensing Medical Officer. Salary, £150 per annum. Apply to the Rev. F. Le Feuvre, Jersey.

Carmarthen Infirmary. Resident Medical Officer. Salary, £100 per annum, with board and lodgings. Address Mr. Howells, King Street, Carmarthen.

Central London Ophthalmic Hospital. Assistant Surgeon. Honorary. Hastings Infirmary. Assistant Surgeon. Particulars of the Secretary.

York County Hospital. House Surgeon. Salary, £100 per annum, with board and lodging. Address the Secretary.

Towcester Union. Medical Officer. Salary, £80 per annum, exclusive of fees. Applications to the Clerk of the Guardians.

North Wales Lunatic Asylum. Medical Superintendent. Salary commencing at £250, with house. Full particulars of Mr. J. Robinson, Denbigh.

Santiago, Chili. Physician to the Insane Hospital. Salary, £600 per annum, with board, lodging, and travelling expenses. Appointment for four years.



## APPOINTMENTS.

BARTON, J. E., M.R.C.S.E., L.R.C.P.Ed., Assistant Medical Officer to the Surrey County Asylum at Brookwood.  
 BOTCH, J. W., M.B., L.R.C.S.I., Medical Officer, &c., for the Stillorgan Division of the Blackrock and Stillorgan Dispensary District of the Batdown Union, co. Dublin.  
 CARTWRIGHT, J. A. T., M.R.C.S.E., Medical Officer for the Leinwardine District of the Ludlow Union.  
 CLAYTON, N. G., L.R.C.P.Ed., a Sanitary Officer for the Galway Urban Sanitary District.  
 COLGAN, H., L.R.C.S.I., Superintendent Medical Officer of Health for the Kingstown Urban Sanitary District.  
 DAVIES, F., M.R.C.S.E., Medical Officer for No. 10 District (the Workhouse) of the Brentford Union.  
 DAVIES, R., jun., L.R.C.P.Ed., L.F.P. & S. Glas., House Surgeon to the Cardovanahire and Anglesey Infirmary, Bangor.  
 FENN, E. H., M.R.C.S.E., Senior House Surgeon to the Middlesex Hospital.  
 GREALY, F., L.R.C.P.Ed., a Sanitary Officer for the Galway Urban Sanitary District.  
 HADON, W. E., L.R.C.P.L., M.R.C.S.E., Resident Surgeon to the General Infirmary, Bedford.  
 HARRISON, J., M.D., Superintendent Medical Officer for the Roscommon Rural Sanitary District.  
 HAWTHORNE, J., L.R.C.S.Ed., Superintendent Medical Officer of Health for the Banbridge Rural Sanitary District.  
 HAY, F., M.D., M.B., C.M., Medical Officer for the Hainton District of the Louth Union, Lincolnshire.  
 HIND, A., L.R.C.S.Ed., Medical Officer for the Barton District of the Luton Union.  
 JAMES, A., M.B., C.M., House Surgeon to the Liverpool Infirmary for Children.  
 JOHNSON, B., M.D., Superintendent Medical Officer of Health for the Middleton Rural Sanitary District.  
 KEMP, J. R., M.R.C.S.E., Resident Medical Officer to the Atkinson-Morley Convalescent Hospital, Wimbledon.  
 KENNEDY, D. M., M.D., Hon. Medical Officer to the Liverpool North Dispensary.  
 KIDD, A., M.D., L.K.Q.C.P.I., Superintendent Medical Officer of Health for the Ballymena Rural Sanitary District.  
 LARKIN, C., L.R.C.P.L., M.R.C.S.E., House Surgeon and Secretary to the Tunbridge Wells Dispensary and Infirmary.  
 LANE, W., M.D., Superintendent Medical Officer of Health for the Newtownmavady Rural Sanitary District.  
 LEE, B. J., L.S.A.L., Medical Officer for the North Wingfield District of the Chesterfield Union.  
 MURRAY, F. R., L.R.C.S.Ed., L.K.Q.C.P.I., Junior House Surgeon to the Birkenhead Borough Hospital.  
 NEWLAND, J. F., L.K.Q.C.P.I., a Sanitary Officer for the Kingstown Urban Sanitary District.  
 NOLAN, J. J., L.R.C.S.I., Superintendent Medical Officer of Health for the Ballina Rural Sanitary District.  
 O'CONNOR, M. P., L.K.Q.C.P.I., L.R.C.S.I., Medical Officer, &c., for the Galbally Dispensary District of the Mitchelstown Union, co. Cork.  
 O'FLAHERTY, J., L.R.C.S.I., a Sanitary Officer for the Kingstown Urban Sanitary District.  
 O'KELLY, M. T., L.R.C.S.I., Superintendent Medical Officer of Health for the Celbridge Rural Sanitary District.  
 OSBORNE, J. A., M.D., Superintendent Medical Officer of Health for the Milford Rural Sanitary District.  
 RAWSON, E. A., M.B., C.M., L.R.C.S.I., Superintendent Medical Officer of Health for the Carlrow Rural Sanitary District.  
 SCOTT, R., M.B., C.M., House Surgeon to the Dumfries Royal Infirmary.  
 SHAW, W., M.D., Superintendent Medical Officer of Health for the Lurgan Rural Sanitary District.  
 SWAN, T., M.D., L.R.C.S.I., Superintendent Medical Officer of Health for the Abbeyleix Rural Sanitary District.  
 THORP, G., M.B., Superintendent Medical Officer of Health for the Lis-towel Rural Sanitary District.  
 TURNER, H., M.R.C.S.E., Medical Officer for No. 8 District of the Norwich Union.  
 WILLS, T. M., F.R.C.S.I., L.K.Q.C.P.I., Hon. Surgeon to the Bootle Borough Hospital.

## Marriage.

SMITH—NOAD.—On the 22nd inst., at Wokingham, Berks, H. Alder Smith, F.R.C.S., of Christ's Hospital, London, to Frances, eldest daughter of G. W. Noad, M.D.

## Deaths.

DUFF.—On the 21st September, at Mandalay, India, C. M. Duff, M.D., Deputy Surgeon-General British Burmah Division.  
 DUFFIN.—On the 17th October, E. Willson Duffin, M.D., F.R.C.S.Ed., of Devonshire Street, Portland Place, aged 74.  
 GROOM.—On the 8th October, Henry George, L.S.A.L., of Kilton-Lindsey, Lincolnshire, aged 72.  
 HAVENS.—On the 18th October, at Donyland Hall, Co. Chester, Philip Havens, M.R.C.S.E., aged 69.  
 RUDGE.—On the 8th October, Henry Rudge, Surgeon, of Leominster, aged 76.  
 SHIELL.—On the 19th October, at Enniscorthy, Thomas Wildridge Shiel, A.B., M.B., T.C.D., L.R.C.S.I., Resident Medical Superintendent to the Wexford County Lunatic Asylum, eldest son of the late William James Shiel, M.D., of Clonmel.  
 TOBIN.—On the 20th October, at the Imperial Hotel, Torquay, of consumption, J. J. Tobin, M.D., of Waterford, aged 28.

## ROYAL COLLEGE OF SURGEONS, EDINBURGH.—

At the Annual Meeting of this College on the 21st inst., the following Office-bearers were elected for the ensuing year:—

PRESIDENT—James Simson, M.D.  
 TREASURER—John Gairdner, M.D.  
 SECRETARY—Robert Omond, M.D.  
 LIBRARIAN—Archd. Inglis, M.D.

## PRESIDENT'S COUNCIL—

James S. Combe, M.D. | William Walker.  
 Andrew Wood, M.D. | Henry D. Littlejohn, M.D.  
 James Dunsmure, M.D. | Patrick H. Watson, M.D.  
 Ex-Off.—John Gairdner, M.D.

## EXAMINERS—

Archibald Inglis, M.D. | David Wilson, M.D.  
 James Dunsmure, M.D. | John Smith, M.D.  
 Peter David Handyside, M.D. | Argyll Robertson, M.D.  
 James D. Gillespie, M.D. | Joseph Bell, M.D.  
 Henry D. Littlejohn, M.D. | Thomas Annandale.  
 Patrick Heron Watson, M.D. | William Stephenson, M.D.

## ASSESSORS—

William Brown. | John Gairdner, M.D.  
 James Spence. | William Walker.

CONSERVATOR OF MUSEUM—James B. Pettigrew, M.D.

CLERK—James Robertson.

OFFICER—John Dickie.

ASSISTANT TO CONSERVATOR—James Grandison.

**MEDICAL—WANTED,** an ASSISTANT to the APOTHECARY PROFESSION of two or three years' standing, who understands the Compounding and Dispensing of Physician's Prescriptions.—Apply to ALEX. BRICE, Armagh.

**IRISH PRACTICE.**—A Medical Gentleman can be secured in an easily worked Practice, realising at present £300 a year, but which can be immediately doubled. Good house, office, &c., at low rent. Satisfactory reasons for present incumbent leaving. Terms moderate.—Apply MEDICUS, 23 Ely Place, Dublin.

**ST. GEORGE'S, HANOVER SQUARE, DISPENSARY,** 59 MOUNT STREET, GROSVENOR SQUARE.—The office of RESIDENT MEDICAL OFFICER is vacant. Salary, £150 per annum, with residence. Candidates are requested to send in their applications, accompanied with testimonials, to the Secretary, Mr. G. H. LEAH, Jun., 73 Park Street, W., on or before SATURDAY, OCTOBER 31st, who will give all information required as to the position and duties. Every candidate must be a Member of the Royal College of Surgeons and a Licentiate of the Apothecaries' Company.

**THE MIDDLESEX HOSPITAL, W.—NOTICE IS** HEREBY GIVEN that there will be vacancies for a RESIDENT PHYSICIAN'S ASSISTANT, and for a RESIDENT OBSTETRIC ASSISTANT, on the 1st NOVEMBER next. Candidates possessing the necessary legal qualifications are requested to send in their applications to the undersigned by 12 o'clock on SATURDAY, the 31st inst. Oct. 17, 1874. By order, H. M. EVANS, Sec. Supt.

## ROYAL FREE HOSPITAL, GRAY'S INN ROAD.—

There is a vacancy for a JUNIOR HOUSE-SURGEON to this Hospital. Candidates, who must be Graduates in Medicine of one of the Universities, or Members or Licentiates of one of the Colleges of Surgeons of the United Kingdom, and registered under the Medical Act, are requested to send in their testimonials to the Secretary on or before WEDNESDAY, 28th OCTOBER. The appointment will be made for six months only, but the holder will be eligible for re-election. Board and residence are provided in the Hospital.

JAMES S. BLYTH, Secretary.

## MALVERN COLLEGE.

This COLLEGE contains TWO DEPARTMENTS—the CLASSICAL and the MODERN. There is also a Preparatory LOWER SCHOOL. There are Boarding Houses within the College Grounds, held by the Head Master and others of his Staff; a Gymnasium, &c.

Board and Tuition under 14, £80; over 14, £90. Non-shareholders pay an extra fee of £6. Special advantages for Sons of Clergymen and Home Boarders.

For further information apply to the Rev. ARTHUR FABER, M.A., Head Master, late Fellow and Tutor of New College, Oxford.

The Examination for Scholarships and Exhibitions on December 22nd and 23rd.

## BLOOMFIELD RETREAT,

Morehampton Road, Donnybrook.

**FOR PERSONS SUFFERING from DISORDERS of the MIND.** Under the Superintendence of a Committee of Members of the Society of Friends.

There are at present a few vacancies for first-class patients (Ladies or Gentlemen) in the above Institution.

For terms or other particulars, application to be made to the Superintendent at the Institution.

Medical Attendant: JAMES H. WHARTON, Esq., M.B., F.R.C.S.I., 28 Upper Merrion Street. Consulting Physician: WILLIAM STOKES, Esq., M.D., Regius Professor of Physic in the University of Dublin, 5 Merrion Square, North.

**CITY OF DUBLIN HOSPITAL, UPPER BAGGOT STREET.**

**Physicians:**  
HAWTREY BENSON, M.B. Univ. Dub., F.R.C.S.I., L.R.C.S.I.  
J. MAGEE FINNY, M.B. Dub., F.R.C.S.I., Demonstrator Trinity College.

**Surgeons:**  
JOLLIFFE T. TUFNELL, F.R.C.S.I., Ex-Regius Professor of Military Surgery, and President Royal College of Surgeons.  
HENRY GRAY CROLY, F.R.C.S.I., L.K. & Q.C.P.I., Senior Demonstrator of Anatomy, Royal College of Surgeons.  
WILLIAM I. WHEELER, F.R.C.S.I., M.D. Univ. Dub., L.K. & Q.C.P.I. Demonstrator of Anatomy, Royal College of Surgeons.  
ARTHUR BARKER, L.R.C.S.I., Demonstrator Royal College of Surgeons.

**Ophthalmic and Aural Surgeon:**  
LOFTIE STONEY, M.D., F.R.C.S., Demonstrator of Anatomy.

**Consulting Physicians:**  
Professor APJOHN, T.C.D., and CHARLES BENSON, M.D., Ex-Professor of Practice of Medicine, Royal College of Surgeons.

**Consulting Surgeon:**  
WILLIAM HARGRAVE, M.D., F.R.C.S.I., Ex-Professor of Surgery, Royal College of Surgeons.

**Consulting Ophthalmic Surgeon:**  
ARTHUR JACOB, M.D., Hon. T.C.D., F.R.C.S.I., Ex-Professor of Anatomy and Physiology, Royal College of Surgeons.

The WINTER SESSION commences in OCTOBER. The SUMMER SESSION commences in MAY.

Special Wards, under the care of Dr. LOFTIE STONEY, are appropriated for the reception of Ophthalmic and Aural cases, and a distinct course of Lectures on Diseases of the Eye and Ear (including Operations) is delivered, for which a Certificate is given.

There is a ward exclusively for Children, affording ample opportunities of studying the Diseases of early life.

Connected with the Hospital is an extensive daily Dispensary, at which the Pupils are allowed to perform the minor operations, and are rendered familiar with the details of Dispensary Management and the Art of Prescribing.

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WEDNESDAY, NOVEMBER 4, 1874.

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## Original Communications.

### ON THE SCIENTIFIC AND EMPIRICAL INVESTIGATION OF EPILEPSIES.

By J. HUGHLINGS JACKSON, M.D., F.R.C.P.,

Physician to the Hospital for the Epileptic and Paralysed, and to the London Hospital.

#### CHAPTER II.

##### DEFINITION.

My definition of the word Epilepsy has already been given by implication, but I must give it formally before I go further.

Epileptic discharges are occasional, abrupt, and excessive discharges of parts of the cerebral hemisphere (paroxysmal discharges).

Let me show another side of the definition. In each Epilepsy there is an area of grey matter in some part of the cerebrum which is so abnormally nourished that it occasionally reaches very high tension and highly unstable equilibrium. It occasionally discharges, or it is discharged by some eccentric irritation or during some general bodily disturbance, as, for example, that attending fright.

After its discharge the portion of grey matter once more, by continuous nutrition, reaches high tension, and is again ready for discharge. It will be gathered that the "discharging lesion" is supposed to be a persistent and also a local lesion. For the definition I have given, it matters not as to the locality of the lesion, or, otherwise expressed, it matters not what particular symptoms result from the discharge; they may be sensory or motor—for example, they may be such as red vision (a) or convulsion.

(a) We have already in Chap. I., Part 2, page 349, spoken of the double use of the word "sensation," and have insisted that sensations in the sense of "states of mind" occur during excitation of motor nerves and centres. The word "red" is really a name for a mental state. The proper comparison is not betwixt the sensation of redness (mental state) in an epileptic discharge and convulsion (physical state). This would be to compare two things which are utterly different. The comparison, physiologically,

Difference in the phenomena depends on difference in the seat of the unstable grey matter. A list of epilepsies will be given further on. But it may now be mentioned that I believe epilepsies in which the phenomena are sensory, or in which strong development of sensation is the initial phenomenon, depend on discharges beginning in the posterior part of the brain; whilst epilepsies in which development of movement is the chief and earliest thing, depend on discharges beginning in the anterior part of the brain. (b)

Let us consider the subject from another point. We have, so far as is practicable, to study epilepsies as departures from healthy states. We must, then, give a brief sketch of healthy nervous discharges before we speak in more detail of epileptic discharges.

Where there is grey matter there discharge occurs during healthy functional exercise. This is a truism. If I move my arm there is of necessity an expenditure of force. This is not in muscles only, nor in nerves only. It must be in some nervous centre or centres. In the movement of any part, however limited, many muscles serve. Duchenne says that no man can move a muscle singly, except perhaps in the face. Evidently it follows from this fact that there is in every movement a discharge of a part where movements are co-ordinated. This is saying that the discharge is of a nervous centre that is of grey matter.

would be betwixt abnormal excitations of optic centres and nerves and abnormal excitations of motor centres and nerves. We cannot observe the results of excitation of "sensory" nerves and centres. We have to rely on what the patient tells us, and, of course, he can only tell us of what occurs before he loses consciousness; we can observe the results of excitation of motor centres and nerves after he has lost consciousness. The statements in the text and subsequent similar statements are, however, conventionally correct, and yet from a scientific point of view too absurd to be misleading.

(b) This is in accordance with an old conclusion that the Anterior is the chiefly Motor, and the Posterior the chiefly Sensory part of the Cerebral Hemisphere. I put forward this view some years ago, and it is a matter of satisfaction to me to find that it accords with certain of Ferrier's conclusions from his brilliant experiments. I shall have many times to refer to this topic, and will therefore give quotations bearing on it in an Appendix to this Chapter.

The above remarks on healthy nervous discharges do not refer only to what are arbitrarily distinguished as physical processes—to discharge of lower centres—they refer in principle to mental states also, or rather, of course, to their physical side. They apply to discharges of the highest centres. The nervous arrangements forming the substrata of mind are only in great degree different from the nervous arrangements of the pons or spinal cord. And when we think or speak, as well as when we walk, there are nervous discharges. I must, however, consider this matter in some detail, because I wish to show that epileptic discharges are discharges of parts of the chief organ of mind.

The anatomical unit of a nervous organ is not a cell or a fibre, or a compound of both. Such a compound is only the morphological unit. The anatomical unit is a *sensori-motor process*. It is not an afferent (sensory) process only, nor a motor process only, but these two put in a particular relation by cells of grey matter. It is just as the unit of speech is not a word, nor a series of words, but a proposition. The anatomical unit represents, either directly or indirectly, a peripheral impression associated with a muscular adjustment. The peripheral impression may be either on the surface of the body, or in its interior—epi-peripheral or ento-peripheral (Spencer). The surface impressions vary from those most general of mere contact of ordinary objects with the ordinary surface of the body to those so special as retinal impressions. The impressions from the interior vary widely also. They are from muscles, viscera, &c., and form the chief part of what are called Systemic Sensations. The movements associated with these two classes of peripheral impressions vary similarly.

In the lower parts of the nervous system it is plain that surface impressions are put in relation with particular muscular adjustments by nerve centres. The units of composition of the lower centres are evidently sensori-motor processes. They represent impressions and movements *directly*. The experiments on the cord to prove reflex actions illustrate this well. What is, anatomically, a sensori-motor process is physiologically a reflex action necessarily implying central discharge. But I submit that the unit of composition of the very highest centres is the same. (See quotations from Laycock and Spencer, Chapter I., Part 2.) The highest centres can only represent the impressions and movements which the lower centres represent directly.

I will state the above in other words, already used. In the lower centres there is a direct adjustment of few and simple movements to few and simple peripheral impressions. In the very highest (a) centres there is an adjustment of exceedingly special movements (representing movements of the whole organism) to the most special of impressions from the environment.

So far for the anatomical units. Now for the physiology of them—that is, their conditions of discharge. There are discharges of the highest sensori-motor processes when we think, just as there are of lower processes when we walk. Let us take a convenient example of discharges occurring in mental operations. There is internal speech and external speech. There are central discharges when I speak internally, just as there are

when I speak aloud. That in the former there are no outward effects makes no essential difference; there is a central discharge in both cases, and of the same series of processes. It is absurd to suppose that different series of nervous processes are engaged when I say "gold is yellow" to myself and when I say it aloud. There is a difference in the strength, and consequently in the spreading, of the discharge. The discharge is slight, and limited to the centre when I speak internally; it is stronger, and spreads from the centre first excited, to lower centres and to the muscles when I talk aloud. So far for healthy discharges.

Wherever there is nervous tissue disease may occur. Now, disease can lead to either of two kinds of changes in this tissue. It may lead either to destruction of function of nerve tissue, or to changes of instability of nerve tissue—either to an inability to discharge, or to an over-readiness to discharge. These are the two divisions of abnormal functional changes in nerve tissue, the simple and obvious ones, of "loss of function" and "over-function;" there are destroying lesions and discharging lesions (instability). Every nervous symptom depends on one of these two abnormal functional states. The nervous changes in epilepsy, as I use the word, belong to the second division. There are in epilepsies abnormal discharges of areas of highly unstable grey matter. *These discharges are to be looked on as gross exaggerations of healthy nervous discharges.* Our next step, therefore, is to consider the differences betwixt healthy discharges of the sensori-motor processes of the brain and epileptic discharges of them. First let me make a brief re-statement.

I believe that epileptic discharges which result in spasm of muscles are excessive discharges beginning in convolutions—that is to say, that they are discharges beginning in parts of the chief organ of mind. I think, too, that discharges of the very same parts occur during healthy mentation. (a) Let us see how these two seemingly contradictory views really harmonise. Let us state a case. We have already spoken of internal and external speech; we now take another series of nervous processes.

Suppose that a limited (b) part of the brain is the seat of visual ideas. The material basis of these ideas is, of course, made up of nerve cells and fibres. But this is, be it remarked, not a statement in either anatomy or physiology, and is of no use for our present purpose. The anatomical statement is, that the substrata of these ideas represent, or rather re-represent, retinal impressions and ocular movements. (Without an element of movement there would be no representation of size or figure.) They are fundamentally like the nervous arrangements for ordinary reflex action; they are sensori-motor processes. We will call them retino-ocular processes. So far for anatomy. Now for physiology. The study of the degrees and conditions of excitation or discharge of nervous processes is a physiological study. We will first consider what occurs in health when we have visual ideas—that is, when we see or remember objects.

Most of our ideas are latent. The equivalent physiological statement is that the anatomical elements (sensori-motor processes) are unexcited. But we speak now of ideas actual and correspondingly of their anatomical substrata as being excited or discharged. Now, we have in health vivid ideas and faint ideas. We see objects and

(a) Observe two differences of degree: In the ordinary reflex action the movement follows the afferent incitation with, no or with little, delay. In the highest centres, if my speculation as to the motor and sensory regions be correct (see foot-note, p. 389, and Appendix No. 2), the movement will not be immediate. For the speculation assumes that there is in the highest centres wide geographical separation, and thus probably delay. Again, in the lowest reflex actions some particular movement is fatally necessary, and occurs rapidly after some particular impression. But in the highest centres it may be that there is not this absolute connexion. The organisation is not complete. Thus, after seeing a red circle and a blue square we can think of a red square and of a blue circle. The sensory and motor elements which enter into the physical side of our perceptions of simple objects can be transposed. These statements appear to me to accord with certain views of Herbert Spencer. (See Appendix No. 1).

(a) Since delirium, hallucinations, &c., are but caricatures of healthy mentation, we may put the statement in the text in another form which is nearly equivalent. A convulsion is, I think, as much a symptom of disease of the organ of mind as delirium is.

(b) This supposition is legitimate for mere illustration, although I do not believe in such narrow localisations; and, as before stated, I think there is in the cerebral hemisphere a wider separation betwixt the motor and sensory elements of sensori-motor processes than in the lower centres; the anatomical substrata of visual ideas must contain elements representing movements as well as impressions. As an illustration, the supposition in the text is convenient and legitimate.

The word Mentation, used in the text, was, I believe, introduced by Mr. Metcalfe Johnson.

we can think of them afterwards. First for the vivid ideas. When we actually see and recognise external objects, we have *vivid* visual ideas. There is then strong excitation of the retina, thence to the highest centres in the cerebrum, and back to the ocular muscles. There is complete sensori-motor (let us say retino-ocular) action. If we recognise an object, the very highest centres must be engaged; for Recognition is, in common with Classification, a modified form of reasoning (Spencer's "Psychology," vol. ii, p. 127). (a) The process described is what is fundamental, however many intermediate centres we may like to suppose betwixt the afferent nerves (optic nerves and retina) and efferent nerves to the ocular muscles. Next for faint ideas. When we have faint visual ideas (think of objects when they are absent—"recollect" them, &c.) there is slight or nascent excitation (discharge) of those highest centres to which, when we actually saw the objects, the retinal impressions came, and from which the impulses to the ocular muscles departed. In other words, essentially the very same physiological process occurs in the two cases, and it occurs in the same anatomical series during thinking of or remembering objects as occurs during actually seeing them. I say essentially, as there are two differences of degree. In thinking of objects the central discharge is (1) slight, and (2) limited to the centre. In actually seeing them it is strong, and spreads from periphery to the centre and from centre to periphery. (b)

(a) As before remarked, retinal impressions and ocular movements are signs of tactual impressions and movements and of locomotor movements. I may here reproduce a part of a paper, on "The Localisation of Movements in the Brain" (*Lancet*, February 15, 1873), bearing on the motor part of the mechanism of this symbolisation:—

"Both in hemiplegia and in convulsions beginning unilaterally we note certain associations. The most important is the association of affection of certain movements of the eyes with affection of those of our limbs. Significantly (and in accordance with the principle spoken of throughout this paper) the movements of the eyeball which are first affected are the *lateral*. We can overcome a prism of from 20° to 30° with its base placed outwards, and one of 6° to 8° with its base placed inwards; but few persons can overcome more than a prism of 1° or 2° with its base turned upwards or downwards. There is then greater variety or independence in the lateral movements of the eye. (The internal rectus is the strongest of the ocular muscles.) In association with this greater independence of the lateral movements we may note that the sensibility of the retina diminishes less rapidly outwards than upwards and downwards. That the movements of our chief tactual organs should have close and direct associations in the *highest* nervous centres with certain movements of the eyes is what one would expect if, as Spencer says ("Psychology," vol. i, p. 358), 'tactual impressions are those into which all other impressions have to be translated before their meanings can be known.' I suppose visual impressions and ocular movements may be said to 'stand for' tactual impressions and movements in the sense that the strong excitation of the nervous processes of the former leads to *faint* excitation of those of the latter (movements of the hands, &c.) The study of cases of hemiplegia and convulsion shows us, not only that there is an association, but the *order* in which eye movements and limb movements are associated."

In the same paper I put forward the speculation that movements of the eyes in divergence and convergence (upwards and downwards) are represented in the cerebellum. Ferrier's researches show that ocular movements are, as I inferred, represented in the cerebellum.

(b) The following are quotations from the parts of Spencer's "Psychology" referred to (p. 349) when speaking of the physical processes occurring in recollection:—

"In brief, those *vivid* states of consciousness which we know as sensations, accompany direct and therefore *strong* excitations of nerve centres; while the *faint* states of consciousness which we know as remembered sensations, or ideas of sensations, accompany indirect, and therefore *weak* excitations of the same nerve-centres" (no italics in original).—"Principles of Psychology," vol. i, p. 124.

"In a voluntary act of the simplest kind we can find nothing beyond a mental representation of the act, followed by a performance of it—a rising of that incipient psychical change which constitutes at once the tendency to act and the idea of the act into the complete psychical change which constitutes the performance of the act, in so far as it is mental. Between an involuntary movement of the leg and a voluntary one, the difference is that, whereas the involuntary one occurs without previous conscious-

ness of the movement to be made, the voluntary one occurs only after it has been represented in consciousness; and as the representation of it is nothing else than a weak form of the psychical state accompanying the movement, it is nothing else than a nascent excitation of the nerves concerned preceding their actual excitation" ("Psychology," vol. i, p. 497).

Now for the epileptic discharge. It must never be forgotten that it is an excessive discharge. Not only is it very much more excessive than the discharges which occur when we have faint mental states, but it is very much more excessive than those occurring in vivid mental states. Besides being excessive, it is of a limited part of the brain. It is rapid, and it is soon over. In such excessive discharges as the epileptic discharge of our supposed centre for visual ideas there could not be a development of ideas of objects either of such ideas as occur in health or of such as occur in delirium and insanity. We have, however, to do with what occurs physically. We have to do with epileptic discharges of those *sensory-motor processes* which are the anatomical side of ideation. There is in some cases of epilepsy evidence of excessive excitation of parts of the brain representing retinal impressions, as the patient has clouds of colour before his eyes. There often occurs also, as part of a larger fit, that clotted mass of movements of the ocular muscles which we call spasm (for example, strong lateral deviation of the eyes). In the first case there is, I believe, a sudden and excessive discharge of a limited part of the cerebral hemisphere, which contains crowds of the sensory element, and in the second of the motor element, in the highest processes of the series for visual ideas. The discharge in the epilepsy being very strong, rapidly spreads down to the lower centres, and by these to the muscles, and thus produces innumerable ocular movements at once, or rather jams innumerable ocular movements into one stiff struggle.

The same reasoning applies, *mutatis mutandis*, to the discharge of the anatomical substrata of tactual ideas, the chief of which are impressions of surface of the fingers and adjusted movements of the hand. An epileptic discharge of the anatomical substrata of these ideas would produce numbness and spasm of the hand and arm.

Similarly, an epileptic discharge of the so-called centre for "memory of words" on the left side of the brain results, I consider, in convulsion of the articulatory muscles. For I believe, and have long urged, that the anatomical substrata of words are motor (a) (articulatory) processes. I should think, too, that an epileptic discharge of that part of the brain on the right side which corresponds to the supposed centre for words on the left would produce an essentially similar convulsion; for I believe that both sides of the brain are educated in words, but that the left is the *Leading* (b) side.

That that which is commonly described as the epileptic paroxysm is the result of a discharge of some part of the nervous system is as certain as that paralysis is the result of destruction of function of some part of the nervous system; the exaggerated movement of the convulsion could not result else. It is a truth, or truism. On the other hand, all abnormal nervous discharges are not epileptic discharges. There is, for instance, an almost continuous stream of discharges in tetanus, and there are rapidly succeeding discharges in chorea. The epileptic discharge comes on with more or less suddenness. The paroxysm is violent, and is soon over.

Briefly, the epileptic discharge differs from the other kinds of abnormal discharges above-mentioned in being paroxysmal. This is a fundamental difference never to be

ness of the movement to be made, the voluntary one occurs only after it has been represented in consciousness; and as the representation of it is nothing else than a weak form of the psychical state accompanying the movement, it is nothing else than a nascent excitation of the nerves concerned preceding their actual excitation" ("Psychology," vol. i, p. 497).

In the ideation of delirium the central discharges may be so strong that the patient believes he actually has snakes, &c., before him. In insanity, also, there is a similar exaggerated central action, but in both cases the discharge is, in comparison with the epileptic discharge, but a slight departure from health.

(a) I have urged this view for years. Until very recently I have been alone in that opinion, that is amongst physicians in this country; I am very glad, therefore, to find that Ferrier has quite independently reached a conclusion essentially similar.

(b) Here, again, I can adduce the independent confirmatory opinion of Ferrier. He calls the left the "driving" side.

lost sight of. It is as important to note the *nature* of a nervous discharge as it is to note the external region on which the discharge works its effects. More will be said on this matter later on, under the head of co-ordination. But the difference may be briefly illustrated by saying that unilateral convulsion (cerebral discharge) differs from tetanus (cerebellar discharge) not only in that a different class (a) of muscles suffers, but in that in the former there is a paroxysmal, and in the latter a continuous, although remittent discharge.

I do not deny that any part of the nervous system which contains grey matter may become unstable, and may discharge abnormally. We shall have to note, however, that some parts of the nervous system are very much more liable to become diseased than other parts, and in the brain the region in the district of the middle cerebral artery suffers more often than other cerebral regions. Further, it is not certain that abrupt and paroxysmal discharges result from disease of the lower parts of the Nervous System in Man. There are, however, certain tetaniform symptoms in children occurring along with, if not dependent on, disease of the cerebellum, to be spoken of later on.

I may now give some examples of epilepsies in accordance with my novel definition of epilepsy. A paroxysm of red vision, (b) of strong smell in the nose, a paroxysm of vertigo, of spasm of certain parts of the body, tonic followed by clonic (of the hand and forearm, of the cheek, of the foot, of the whole of one side, going on or not into universal convulsion), of coloured vision, with other initial symptoms of an attack of migraine, are all epilepsies. So also is transient loss of consciousness, or loss of consciousness followed instantly by convulsion. In each of these cases there is an abrupt and excessive discharge. It is particularly to be observed that a convulsion in which consciousness is *not* affected is under the novel definition, as much an epilepsy as one in which, as in slight *petit mal*, consciousness alone is lost there being, at any rate, no *observable* spasm. In the latter, as in the former, there is a sudden, excessive and rapid discharge of nerve tissue. Since I believe that any part of the cerebral hemisphere may become the seat of a discharging lesion, there will be all kinds of phenomena produced; and since there are supposed to be all degrees in the extent of the discharging lesion, the symptoms will vary in degree as well as in kind.

(To be continued.)

## ABSTRACT OF AN INTRODUCTORY ADDRESS

DELIVERED AT THE  
ROYAL COLLEGE OF SURGEONS IN IRELAND.

By EMERSON J. REYNOLDS, F.C.S.,  
Professor of Chemistry in the College.

GENTLEMEN,—In accordance with a time-honoured custom, we meet to-day to inaugurate a new winter session of professional study in these halls. An annual gathering such as this, honoured as it is by the presence of the heads of the college, marks for many the commencement of a great life-work and for a still larger number of us, the beginning of a new stage of progress in knowledge; while a pleasant atmosphere of hopefulness surrounds us all. But however bright the future may seem to us, much more than a passing shade must be cast over our meeting to-day, just as on the last occasion, by the remembrance that a few weeks only have elapsed since the grave closed over all that was mortal of a venerable and distinguished former Professor of this college. Need I say that the name of Dr. Arthur Jacob will long live in these halls and in the memories of all of us who had the privilege of calling him "master." Of his great intellectual activity, of his intense earnestness, and of his services to science, it would ill-become, especially in the presence of one who has given to the world an admirable biographic sketch of Jacob's life; but some of those whom I have the honour to address will

(a) Or rather, perhaps, the muscles suffer in different order. In cerebral discharges the limbs suffer first and most; in cerebellar discharges, the trunk suffers first and most.

(b) See first foot-note to this Chapter.

remember to have heard this theatre ring with cheers as the fine old man demonstrated to us the "Membrana Jacobi"—his chief anatomical discovery—and they may have also listened while he described with enthusiasm to a hospital class that peculiar form of ulcer with which his name was long associated. In care for the interests of this college—of which he was thrice President—Dr. Jacob was unwearied from the time of his appointment in 1826 to the chair now so worthily occupied by Dr. Mapother, until, as Professor Macnamara says in his biography—"Full of honours, full of years, he at last, in the unimpaired vigour of his intellect, resolved on retiring from the services of that college which he loved so well, and over which he had for so many years presided with unceasing devotion." You are all no doubt aware that during the present month a special Act of Parliament has come into operation in this country which is likely to exercise a most important influence upon the future relations of the medical profession and the public. Up to the present time the dispensary medical officers in Ireland have been, at least officially, the representatives of curative medicine only. The new Public Health Act has essentially charged them with the application of the principles of preventive medicine in addition. I heartily wish it could have secured to them larger remuneration for these added duties than they seem likely to receive. The Act is admittedly open to criticism, but the reasonable and prudent course seems to me to be to await experience in the application of its most useful enactments under the judicious supervision of the Local Government Board. When the defects in its working are fully and fairly ascertained, I think we may look with confidence for the remedy to the distinguished statesman who had charge of the measure in its passage through the legislature. But you are more nearly concerned in ascertaining the extent of the influence the new Public Health Bill in Ireland is likely to exert upon medical education in this country. I am well aware there is a wide-spread impression that this influence will be very great; but after careful consideration of the matter, I think we may safely conclude that the actual effect will be comparatively slight. When we exclude the legal and engineering questions likely to arise under the new Act, and which should be dealt with by competent lawyers and engineers, I think it will be found that no really new study need be undertaken in order to fit a man for the performance of the duties of a medical officer of health. In the words of one whose illustrious name is the highest guarantee for the statement, preventive medicine has amongst its chief objects, on the one hand, says Dr. Stokes, "the removal of the supposed causes of diseases, whether affecting individuals or giving rise to endemics or epidemics; and on the other, the employment of those measures which are to promote the physical well-being of the community." But it is clear, gentlemen, that the causes of diseases cannot be removed if they are not known, nor can the conditions of maximum health be secured to the community if we are ignorant of the relative importance of the great factors in the physical well-being of man. Hence the study of the etiology or causes of diseases, based on a large and sound knowledge of chemistry, physiology, and pathology, and aided by the information the statistician can afford, must assume a position of much greater importance than heretofore in the professional curriculum—I mean, of course, in the eyes of students. In the remarks I have hitherto made it has been almost assumed that the causes of disease are known. Now though this perhaps is true of many, it is very far from being true of the great class of epidemic diseases to which scarlatina, small-pox, yellow fever, typhus, and typhoid fever belong, though a certain class of sanitarians in their extreme dogmatism would lead you to suppose the opposite. The spread of these epidemic diseases is undoubtedly in great part due to contagion, but we are ignorant of the nature of the virus communicated by the sick person, and of the precise origin of that emanation. Here, then, is a great field for investigation open before you—great in importance as in extent. We shall pursue the subject so far as to enable you to appreciate the use we may



make of two of the so-called disinfectants I wish specially to bring under your notice to-day. If the propagation of disease be due to the scattering of living organisms, these bodies, different though they may be for different diseases, all probably agree in being extremely minute, and are perhaps to be regarded, as Dr. Parkes says, as belonging to that class of organisms which Nägeli has separated from the fungi, and which form the lowest stratum of the animate world at present known to us, such as bacteria, vibrios, &c. In dealing with epidemic disease the sanitary officer acts upon his knowledge of the fact and the theory of contagion, for he in the first instance isolates the patients as far as practicable, and then seeks to destroy the living organisms assumed to be thrown off by the affected, and liable to be carried to the healthy by the atmosphere, clothes, or other numerous means by which matter can be transported; in other words, he resorts to the use of "disinfectants" so-called. And it is chiefly to chemistry, gentlemen, that the sanitarian appeals for the means of destruction of his hypothetical "germs," and experience has proved that he does not appeal in vain, for chemistry supplies him with numerous substances more or less suitable for his purpose. Of these many are well known and freely employed both as mere deodorisers, in the sense of removing bad smells, and as disinfectants in the wide meaning of the term; but I would seek to-day to awaken your practical interest in two of the latter class which experiment has forced me to believe are amongst the most effective bodies known—my reference to them shall, however, be very brief. The first body I shall refer to is benzoic acid, and the second ozone. But you will bear in mind that any statements I make touching benzoic acid and ozone refer to their action on Bacteria, &c. Now we may destroy these organisms at ordinary temperature either by poisoning them or by a corrosive chemical action somewhat analogous to that which would take place if we were to dip an animal in a bath of aqua fortis. According to the experiments of Dr. Dougall, and my results accord closely with his, benzoic acid may be taken as one of the best types—if not the best—of the poison group, though it may be taken by man in considerable doses with impunity. Benzoic acid is superior even to carbolic acid and its homologues, and is free from their unpleasant smell, and from other disadvantages that interfere with their convenient use. I am, therefore, anxious to see this interesting and non-corrosive acid more extensively employed as a disinfectant than it has hitherto been. Benzoic acid has long been known and used in pharmacy for the purpose, amongst others, of preserving ointments from decomposition. It is a light, feathery body, as met with in commerce, and is obtained, amongst other sources, from the so-called gum benzoin by the simple process of heating. The acid, being very easily volatile, sublimes, and is condensed in snow-like flakes. The pure substance is inodorous, but when heated it diffuses an agreeable smell, owing probably to slight decomposition. Advantage can be taken of its volatility to diffuse the acid through an infected apartment, for we have only to heat gently a brick or shovel, and to throw some of the acid upon it in order to get a quantity of vapour that can be allowed to mix freely with the air of the room. Again, the acid is easily soluble in hot water, and therefore in the state of solution can be employed in washing boards, infected articles of clothing and surgical appliances, or as a solution for the spray produce employed in that remarkable system of antiseptic surgery practised with such success by Mr. Lyster, of Edinburgh. And now I turn to the second disinfectant I referred to—namely, ozone.

We possess a very delicate test from this ozone in paper saturated with a mixture of iodide of potassium and starch. When paper so prepared is acted on by ozone, iodine is liberated and its separation evidenced by the strong brown or blue colour developed. It has been long known that when this prepared paper is exposed to pure country air it is quickly discoloured, but it remained for Dr. Andrews to

prove that this effect is really due to ozone. Now, it is found that this atmospheric ozone is rarely present in the air of large towns, more especially in the neighbourhood of factories, and the reason for this clearly is that the organic and other impurities in town air destroy and, I may add, at the same time are destroyed by this ozone, which acts as a natural disinfectant. I have experimented with this body to a large extent upon the lower organisms, and can state as the result that the destructive action it exerts upon them is very great, especially if they happen to be in a somewhat dry condition. In this respect ozone appears to be greatly superior to chlorine, and in ultimate effect to the gaseous oxide of sulphur commonly called sulphurous acid. But some of you may ask what is this ozone, and I reply that it is a very active modification of oxygen, that gas upon whose presence in the atmosphere our lives depend. The partial conversion of this atmospheric oxygen into ozone is a much more simple matter than many people suppose, and I shall, in conclusion, draw your attention to several methods of ozonising air. Rather more than sixty years ago Van Marum noticed a peculiar smell produced when electric sparks are passed through the air. We know now that this smell is due to the formation of ozone during the passage of the electric discharge, and it is fairly argued that the ozone we detect in the atmosphere, and which is abundantly present after a thunderstorm, is produced by electricity. But we have ozone produced in many other ways, but particularly during certain processes of slow combustion, though a high temperature destroys ozone. I may illustrate this in the cases of the slow oxidation of phosphorus and of ether, the latter case being especially interesting, as it affords us an easy mode of ozonising a small quantity of air. The method by which we can produce large quantities of ozonised air is that in which we make the gas pass between two surfaces, in opposite electrical conditions, and with the aid of the apparatus called Siemen's induction tube, through which air is forced by means of a bellows, we can quickly ozonise the atmosphere of a large room. The actual quantity of ozone produced in all these processes is small, but its great chemical activity compensates for this. We are, however, able to store it up in a comparatively concentrated form in certain bodies which easily absorb it, such as ether, turpentine, and some of the essential oils, and these solutions are capable of producing most of the effects of ozone. I have here some ozonised ether, and I can show you that it differs materially in its action from ordinary ether; but I may, at the same time, warn you that concentrated ozone, if I may use such a term, is capable of acting, not only as an irritant to animals, but also, like most oxidisers, as a powerful bleaching agent.

#### CHEMISTRY IN ITS RELATIONS TO THERAPEUTICS. (a)

By W. HANDSEL GRIFFITHS, Ph.D., L.R.C.P.E.,

Licentiate of the Royal College of Surgeons of Edinburgh, Honorary Member of the Ontario College of Pharmacy, Librarian to the Royal College of Surgeons in Ireland, Editor for the *Edinburgh Medical Journal* of "The Monthly Reports on the Progress of Therapeutics."

THE subject which it is my privilege and pleasure to bring under the notice of the Society this evening is one which should possess considerable interest for every member of the profession of medicine. I suppose there is not one of us who does not welcome every effort towards establishing therapeutics on a scientific basis.

My present object is to direct the attention of the Society to certain recent chemico-therapeutical researches, which are of no little importance as serving in some degree to raise therapeutics from the grade of irrational empiricism to the dignity of an exact science.

Three lines of research, although as yet imperfectly prosecuted, have already borne fruit, and hold out promises of an abundant harvest; these enquiries are—1st. The chemistry of the tissues and secretions in their healthy and morbid states; 2nd. The connection between the chemical constitution and physiological action of medicinal agents, and 3rd. The chemical decomposition and alteration of drugs in the animal economy.

(a) Read before the Surgical Society of Ireland.

To the chemist undoubtedly belongs the credit of paving the way to a scientific therapeutic method. "Chemical enquiry is now finding its way into many of the remoter secrets of function, and is likely before long to establish some laws of molecular constitution which will enable us to classify unknown remedies and to explain and calculate their actions." So writes Clifford Allbutt.

The necessity of studying remedies from their chemical relation to the animal tissues is forcibly indicated by Charles Bland Radcliffe in his paper on "The Treatment of Neuralgia," read before the British Medical Association, at the Bristol meeting in 1863. He reasons thus: Nerve pain is indicative of deterioration of nerve tissue; hence phosphorus and cod-liver oil as nutrients for the nerve tissue are the appropriate remedies.

So long ago as 1841, Blake (a) attempted to frame a law to the effect that salts of isomorphous bases have in general a similar action. So far as I am aware, this was the first attempt to define a connection between chemical constitution and therapeutic action.

In 1868 Dr. W. H. Broadbent brought an extremely interesting communication under the notice of the Royal Society of London. (b) In this paper the author states that "substances chemically allied should have similar physiological and therapeutic actions, or any diversity found to exist should be capable of explanation on chemical grounds." The source of nerve-force is stated to be oxidation, and the seat of oxidation is the nervous structures. Poisons which kill by their action on the nervous system all contain nitrogen, and this element is the pivot on which the deadly influence turns. In the nervous structures carbon and hydrogen are liberated in the nascent state and appropriate the oxygen brought by the blood, and thus produce a result equivalent to exclusion of oxygen. The carbon and hydrogen are set free by the dislocating influence ("chemical tension") of nitrogen. Prussic acid affords a striking example of a poison acting in such a manner. This paper of Broadbent's is eminently suggestive, and must be regarded as a valuable contribution to the chemistry of therapeutics. I have now to ask your attention to the masterly essay of Drs. Crum Brown and Thomas Fraser, "On the Connection between Chemical Constitution and Physiological Action." (c) These investigators show that composition alone is insufficient to explain physiological action, and that constitution, by which is meant the mutual relations of the atoms in a substance, must also be taken into account. Thus, acetic acid and sugar are identical in composition, as are glycolic acid and nitrite of ethyl; again, kakodylic acid is inert, although it is perfectly soluble and contains 54 per cent. of metallic arsenic. It would be foreign to my purpose to enter into anything like an elaborate analysis of this valuable paper. I will content myself by stating that the learned authors have shown that the physiological action of a substance may be completely altered by introducing into it a definite chemical change without breaking up its molecule. Thus, by adding iodide of methyl to the non-saturated base, strychnia, its poisonous properties were greatly diminished. The authors conclude that while "physiological activity is related to condensation, the occurrence of saturated substances such as alcohol, corrosive sublimate, and oxalic acid, having a well-marked poisonous action, and of condensed substances such as benzoic acid and salicine, which are comparatively inert, shows that condensation is not the only condition of physiological activity. There can, at the same time, be little doubt, that if the effect of condensation were discovered and eliminated, the other conditions might be much more hopefully sought for."

While Crum Brown and Fraser were thus working in this country, Jolyet and Cahours were pursuing an almost identical line of investigation on the Continent. (d) Knowing that in various compounds an equivalent of hydrogen may be substituted by an organic radical without chemically changing the fundamental properties of the original compound, they investigated the question as to whether this substitution would modify the physiological properties of the compound. They compared the action of aniline with that of ethyl-aniline, trimethyl-aniline, and amyl-aniline. They found that while the

action of aniline is to excite the cerebro-spinal centres so as to produce convulsions, the action of the derivatives was to abolish the function of those centres. One of the most definite chemico-therapeutical laws has recently been enunciated by Rabuteau. It is to the effect that metals are more active physiologically according as their atomic weights are higher or as their specific heats are lower. This law holds good as regards the diatomic metalloids, but the monatomic metalloids are governed by a law which is the reverse of this. The metals rubidium, tungsten, and molybdenum form exceptions to this law. I should not pass over the fact that M. Rabuteau has proved that the organism is a reducing agent converting bromates into bromides, sulphates into sulphites and hyposulphites, and so forth.

B. Ward Richardson has done good service in drawing attention to the connection between chemical constitution and physiological action as evidenced by the alcohols. The number of atoms of carbon contained in an alcohol would seem to serve as an index to its activity; thus, ethylic alcohol contains but two atoms of carbon, while amyl alcohol, which is much more active, has five atoms.

I purpose now to direct your attention to certain axioms which that advanced therapist, M. Gubler, has recently advanced relative to the sphere of action and of elimination of drugs. (a) I say "axioms," for, for lack of absolute proof, we cannot assign to these propositions the standard of definite laws. The first of these axioms or theorems may thus be stated: Substances tend towards their similars or analogues in the animal economy—thus, sulphur would tend towards sulphur, phosphorus towards phosphorus, arsenic towards phosphorus, bromine towards chlorine, selenium towards sulphur and so on. A second theorem is that when a substance cannot meet with its similar or analogue it cannot be assimilated, and must be eliminated. A third proposition is that a substance is eliminated by that channel in which it meets with similar bodies—thus, neutral salts, sulphocyanide of potassium and soda, would be eliminated by the *saliva* and *pancreatic juice*; soda, fatty acids, neutral fatty bodies, cholesterol, resin, and ferruginous pigment by the *bile*; neutral salts, substances acting as acids, fatty matters, water, and ferruginous pigment by the *urine*; gas and vapours by the *breath*; casein, lactone volatile fatty acids, butter, and neutral salts by the *milk*; and fatty acids, volatile acids, and neutral salts by the *sweat*. For my own part I am inclined to regard these theorems as in the main verging on absolute truth, and until they are disproved, or until some equally intelligible and plausible proposition is offered, I will elect to regard these axioms of Gubler as adequately explanatory of the sphere of action and of the channel of elimination of drugs. I lean strongly to the opinion that the presence of quinioidine in animal tissues, as has been demonstrated by the masterly researches of Bence Jones and Dupré, is a powerful argument in favour of Gubler's views.

I will now briefly allude to a subject of considerable interest which M. Onimus has recently brought under the notice of the Académie des Sciences. That investigator finds that the interposition of a layer of some albuminoid substance, as the white of an egg, between two liquids, often gives rise to electro-chemical phenomena. If into an U-shaped tube some albumen be poured, and if into one side a solution of sulphate of copper be placed, and into the other side a solution of oxalate of potash, after a while blue crystals of double oxalate of copper and potash will be formed. Again, when phosphate of soda is placed in one side, and chloride of lime in the other, phosphate of lime will be obtained in the side in which the phosphate of soda was placed. These facts are not without therapeutical application, for we may infer that it would be more beneficial to administer these salts separately than to give phosphate of lime directly, since this salt is so easily formed in the organism.

The discovery of the physiological action of chloral by the illustrious Lieberich has given such an impetus to the study of the decomposition of chemical agents in the organism that it is probable this line of research will ere long extend to the whole course of therapeutical learning. The attention of the Académie des Sciences has lately been occupied by the extremely interesting researches of M. Byasson and M. Personne relative to the chemico-physiological action of chloral. In the "Monthly Reports on the Progress of Therapeutics," which I have the honour to edit for the *Edinburgh*

(a) "Proceedings of the Royal Society of London," vol. iv., Jan. 28th, 1841.

(b) "An Attempt to apply Chemical Principles in Explanation of the Action of Poisons." ("Proceedings of the Royal Society of London," vol. xvi., 1863.)

(c) "Transactions of the Royal Society of Edinburgh," vol. xcv.

(d) "On the Substitution Compounds of Aniline." (*Comptes Rendus*, tome lxxvi., 1 68, p. 1131.)

(a) See an article by M. Bordier in the *Bulletin de Thérapeutique*, January 30th, 1873.

*Medical Journal*, I have not omitted to refer to these investigations. M. Byasson thinks that the longer duration of the action of chloral compared with that of chloroform is due to the slowness of the chemical action, and that the difference in the physiological phenomena is explained by the intervention of formic acid produced at the same time as the chloroform and acting under special conditions. M. Personne, on the other hand, is of opinion that the combination of the chloral with albumen explains the longer duration of action of this body compared with chloroform. The first action of chloral on the albuminoid materials of the economy produces chloroform at the expense of their alkali; at the same time, these materials, deprived of their alkali, contract a combination with the undestroyed chloral, and this combination is, in some sort, a reservoir of chloroform. Thus is explained why it is we meet with so small a quantity of chloroform in the blood of animals submitted to the action of chloral. The theory that the action of chloral is in part to be accounted for on the supposition that formic acid is produced, and is subsequently reduced into carbonic acid in the system, M. Personne has endeavoured to disprove experimentally. He gave formic acid to dogs without perceiving the slightest production of carbonic acid, nor did any symptoms of anæsthesia supervene.

I have this evening briefly glanced at some important chemico-therapeutical researches which have recently occupied the attention of scientists. I trust on a future occasion to bring forward a more ample statement, and to formulate some additional laws which my own researches would seem to warrant, but the enunciation of which in their present stage would be premature.

It will be seen from what I have stated that I am an ardent disciple of the School of Chemical Therapeutics. I must be understood, however, to advocate as ardently physiological and clinical research. The labours of the chemist will be unavailing if not co-existent with the researches of the physiologist, and both must be supplemented by the careful observations of the clinical physician.

The flood of light which is being shed upon the nature of diseased action by the labours of the physiologist and pathologist, the modern refinements of clinical investigation, and the impetuous progress of chemical science will ere long bear fruit in the establishment of a therapeutic method worthy the name of science. Have not the researches which I have brought under your notice this evening an importance as evidencing a line of investigation pregnant with golden promises. May it not be that the generation to come will look back on the empiricism of to-day as do we on the pretensions of the past.

## INDIAN MEDICAL NOTES.—XXVIII.

MEERUT, September, 1874.

### YESTERDAY AND TO-DAY.

THERE'S nothing new under the sun. In the *Asiatic Journal* for 1828 runs a paper by Whitelaw Ainslie on "The Constitutions considered suited for India." Younger than 21, older than 36, were objectionable ages, excepting for lively cadets, heaven-born civilians, or grave governors, judges, or generals holding positions of comfort, without excessive exposure to extreme heat, or fatigue by day, nor to the noxious dews of the night. On the look-out for vivid colour, animated look, firm step, cheery voice, clear eye, clean tongue, inoffensive breath, or for middle-aged steady, sober, seasoned soldiers; no dull, fallow, bloated, pot-bellied recruit—perhaps epileptic, scrofulous, syphilitic, skin diseased, or idiotic—need apply. Dyspeptics were expected to dine on one dish, to take but two meals daily, at six hours' interval, to keep temperate, to walk or ride in moderation, avoiding chills or excessive fatigue.

In 1824, an inflammatory fever in Bengal, characterised by sore-throats, rheumatic pains, cutaneous eruptions, great prostration, spared neither age nor sex, the resident or the stranger, neither the natives nor the animals. Hot sultry months, irregular rains suddenly checked, had something in connection with this fever, which, specially severe in May, was treated by bleeding, purgatives, and emetics. During life the heart's action would be vio-

lently tumultuous, and after death the spleen enlarged, liver mottled, abdomen distended, and the skin yellow, were noticeable points. In June, 1828, broncho-pneumonia was very fatal to children under four years of age. When, in 1829, at Meerut, the rains, of eccentric frequency and unusual quantity, suddenly ceased, very early in September (a hot month, with chilly nights), the Europeans and natives generally were universally stricken with bilious remittent, the severe cases assuming the worse type of jungle fever, whilst milder forms passed off as simple intermittent. The oldest inhabitants suffered the most, the protracted debility, dejected aspect, despondent minds, all culminated through tardy convalescence in eventual recovery. The much-abused canals, blamed as the cause of typho-malarial fevers to-day, then did not flow near Meerut. In 1830, at Penang, when horses had glanders, human beings suffered from ardent fever, rheumatic pains, sore-throat, increased discharges from nose, ear, and eyes. In 1832, at Indore, when vaccination never failed, the people suffered from epidemic catarrh, which that year, in the month of April at Meerut, attacked 200 men of the 26th, without one single death, according to Dr. Playfair, who then wielded the medical thunderbolts here. In 1836 the Pali plague, traced to cloth-printers, and limited to towns in connection with the sick, terribly scourged certain places, names unknown, the buboes in groins, arm-pits, and neck non-suppurating. Ever so long ago the belief existed that malaria was the common parent of fever and cholera—a view adopted by Dr. Alexander Smith.

To-day there are but scanty materials to supply the possibly bewildered practitioner with the chronicles of the past; there are but few brightly-shining beacons to point the dangerous rocks, the hidden reefs, or cruel quicksands, and to pilot our course through friendly channels into the harbours of safety. Probably the laborious researches of Cunningham and Bryden, however, have not been studied by those who imagine that doctors have free command of power and purse, able to drain stations, build barracks, change climate and constitutions by the wave of the magic wand, just as the spangled fairy transforms the regions conducive to malaria into realms of perpetual bliss. Thanks to fevers, our hospitals just now are largely patronised, for instance, to-day, September 16th, when the flock have to be watched with anxious vigilance, to prevent simple cases in-idiotically drifting into dysentery, enteric fever, perhaps cholera. Before the days of thermometers, probably many a nian dragged about until fatal collapse, from perforation closing the scene, caused panic. Depend upon it, these fevers have a common malarial origin, or connection of cerebro-spinal character, requiring hypodermic treatment, the success influenced by early recognition, diagnostic skill, the patient's constitution, and, above all things, by the best of nursing from moment to moment.

In the commencement of enteric fever the treatment by cold baths or wet sheets may succeed; yet, if delayed until the green gangrenous ulcers have almost destroyed the ilium, the weak watery blood poisoned throughout, the poor heart bowed down by internal clots, the remedy should not entirely be blamed when perforation, collapse, hæmorrhage, erysipelas, Bright's disease, hæmaturia, purpura, pneumonic embolism, aortic aneurism, obstinate constipation, neuralgia, deafness, or a host of other consequences supervene. To-day my inclination is to praise the cold baths—who knows for how long? Indeed, the only remedies thoroughly believed in are quinine, mercury, and turpentine, the latter in iritis, puerperal fever, epilepsy, worms, hæmorrhages, or, for local application, something marvellous. In 1867 the east wind apparently blew cholera eighty miles from Morada—bad to Meerut—where, out of 155 cases, 22 survived—the Artillery and 19th Hussars very lightly stricken compared to the Buffs, whose tents were eventually pitched under the welcome shade of trees, for the flight from the Scylla of cholera may tend to the Charybdis of heat-apoplexy.

As usual, between August 17th and September 25th

vacated barracks, latrines, urinals were fumigated with nitrous acid; astrigent medicines, tea, coffee, charcoal-filters, cots, extra tents provided; fruit, vegetables, muddy beer interdicted; fatigue prevented, the infected clothes and bedding burnt. No cause could be discovered; the pebbles of inquiry thrown into the pond caused a few bubbles besides the splash and eddy for a while, then the rest was silence. The native troops and prisoners escaped; so they did in 1869, when Dr. Muir thinks a sick traveller by rail imported cholera, on the 15th of August, the day as dangerous as the Ides of March to Julius Cæsar, in the opinion of medical Zadkiels. Why did the traveller select that day? Irrespective of the city population, there are 25,000 people in one bazaar, the smell far more tolerable than the fried-fish aroma of Clare Market, where I spent a night professionally once, after dining right royally with a City company. Concerning the epidemic which mildly affected the 4th Hussars, Artillery, the 105th Regiment, Dr. Lewis, examining the soil microscopically in solution during the first few days, found no infusoria; afterwards they appeared in great numbers in the soil near the Hussar barracks, mostly consisting of phases in the existence of monas lens, altering their form very rapidly, frequently protruding an amœba-like vesicle. There were also amœbæ with filaments, multiplying by division. In 1872 the prisoners had a turn at Meerut, where, about the 14th, or more decidedly, the 21st of August, that cruel vapour—call it what you will, the question is an open one—permeated certain places, sparing the Rocket Troop Lines and other barracks with erratic caprice, cruelly scourging others, here and there insidiously smiting those susceptible, whether weakly or robust, especially the nervous, the curious concealer of disease, the man oppressed with anxiety, or the fool who doctors himself—sometimes one member of a family attacked, sometimes all; neither infancy nor old age, neither complexion, sex, temperament, rationality, pregnancy, nor acclimatisation conferred immunity. Those acclimatised who had not taken the curve down hill did not escape attack; yet several recovered, on the same principle as middle-aged practitioners become callous to virulent variola, scarlet or typhus fever, or erysipelas, which unconsciously they may convey to their patients or their families. Purgatives provoked attacks, apparently influenced by malaria, associated with fever—it was difficult to distinguish—for, simultaneous with cholera and fever appeared dengue, followed by acute dysentery, in fact, hardly a man was fit for duty; almost every officer was sick. The deaths in the district amounted to 510; and who can tell how long the excreta in the soil saturated with the products of former epidemics will remain susceptible to the influences of heat and moisture?—influences telling with tenfold intensity on those enfeebled by months of heat, constant rain, stagnant atmosphere, heavy clouds, with or without thunder, the wind easterly; all welcomed the sun's vengeance on the flat, undrained, spongy, possibly miasmatic soil. The 105th encamped at first two, then seven miles, from the barracks, until it pleased God to bid the destroying angel stay. There are heaps of books, diagrams, tables entering into the statistics of stages of collapse, reaction, married, single, barracks, all accessible in England to the interested, who, however, above all things, would like to know the treatment tried—sinapisms, turpentine, opium, effervescent, chloroform, camphor, strychnine—1-32nd of a grain in solution hypodermically, chloral, milk, beef-juice, sago, figured amongst the favourite weapons. In that practicable and valuable journal, the *Indian Medical Gazette*, there is a paper by Dr. Jessop, 4th Hussars, on "Irritant Causes of Disease," wherein he alludes to two cases of meningitis caused by blows on the head, both contracting dysentery in hospital, showing the connection between direct injury to the nervous centres and the integrity of the intestine. Also at Meerut, during the trouble of 1872, a man contracted dysentery by sitting over the same latrine as another affected. A firm believer in Dr. George

Johnson and castor-oil, Dr. Jessop, apparently a medical officer of "great and vast experience," as the saying is, swears by turpentine, combined with soda, gum, tinct. cardam. co., tinct. opii, and castor-oil, at the commencement of suspicious sickness. This very day two cases of dysentery are associated with tape-worm, inducing high fever; after death by enteric fever such complications are occasionally noticed. Also, out of eighteen natives (mostly females, two pregnant) who hung themselves, twelve had lumbrici in numbers in the small intestine, according to Dr. Goopta. Now, I ask any middle-aged well-to-do working general practitioner, is there any remedy at the commencement of any disease safer and better than a combination of opium, castor-oil, and turpentine?

## Hospital Reports.

### CASHEL UNION HOSPITAL.

(Cases under the care of Dr. LAFFAN.

By DR. W. P. HOURIGAN,

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A BRIEF abstract of some cases which were under Dr. Laffan's treatment from time to time may not prove uninteresting to your readers.

#### Grafting.

M. R., æt. 35, admitted for large indolent ulcer of the leg. The disease had existed off and on for some years, and at time of admission the sore had not healed for a period of eighteen months. All the treatment that ingenuity could suggest was in vain tried to procure the healing of the ulcer, and at length Dr. Laffan determined to give a trial to grafting. Accordingly he directed me to remove a portion of tissue from one of the arms. This was done, and having been cut into small pieces, was attached to the surface of the ulcer after the manner laid down by the late Mr. Woodman. The success of this treatment was remarkable; readily all the grafts took, the surface of the sore became dotted over with minute islands of granulations, and the ulcer, which had so long refused to advance beyond a certain point in obedience to any treatment healed perfectly in a few weeks.

#### Cut Throat.

A case of penetrating wound of the larynx may be usefully mentioned at a time when, thanks to the statistics of wounds in this region already published, surgeons have been enabled to form a more accurate estimate than hitherto of the intrinsic dangers of laryngeal wounds, and operations have in consequence been recommended and successfully carried out under circumstances where they would not have before been deemed admissible—such as, for instance, those performed by Langenbeck for the purpose of administering anaesthetics, and the practice of earlier operating in laryngeal and tracheal diseases.

The patient, a woman, æt. 40, came under Dr. Laffan's care for a self-inflicted wound, extending nearly from ear to ear, and involving the air passages in two places. One of the wounds penetrated the thyroid cartilage near the attachment of the thyro-epiglottic ligament; the other severed the thyro-hyoid membrane; the carotids had fortunately escaped. The patient, at the time she was seen, was in a syncopal state, pulseless, and blanched from the immense quantity of blood which had been lost. Measures to arrest the hæmorrhage and bring back animation were immediately resorted to, and the sides of the wound brought together by suture and position as directed by Mr. Erichsen. The centre of the wound, in accordance with the same authority, was left open and covered with folds of muslin. The patient was kept in a room heated to the temperature of 60°, and which was impregnated with

the vapour of steam, and she was watched day and night until all danger had ceased. Perfect recovery ensued after some weeks.

#### *Significance of Albuminuria.*

The existence, and still more the persistence of albuminous deposits in the urine is so uniformly associated in the mind of the practitioner with the gravest prognosis that it is comforting to know that not always does this persistence call for so much alarm.

A case of albuminuria, in a man *æt.* 50, was two years ago under treatment. Dr. Laffan had me make daily analysis of the urine for eighty consecutive days, and at the end of that time the albumen, which had persisted almost to the close, was found to have disappeared. Dr. Laffan has followed the after-history of this case, and within the last few days analysed this man's urine, with the result of finding it free from the least trace of albumen. There have been other cases also in which prolonged daily examinations of the urine have disclosed the same result; I may mention one notable instance: It occurred in a patient, *æt.* 60, suffering from severe dropsy depending on chronic bronchitis. Albumen was found in the urine, and continued for some weeks, and then disappeared. Remedies addressed to the dropsy subsequently removed that affection.

#### *Fracture of the Patella.*

This happened in a young man, *æt.* 25, and was caused by a direct blow. The knee-bone was completely fractured across. The case was seen within a few hours after the accident, when it was found that inflammation had already set in. Antiphlogistic measures were actively used, and as the fragments were being more and more separated, every hour an opportunity was anxiously looked for for putting up the fracture. This was deemed safe on the fifth day, and Hamilton's single inclined plane was employed. Twenty-four hours afterwards this had to be relaxed, and it was not until the eighth day that it could be permanently adjusted. The apparatus was maintained in position for six weeks, and when it was removed the fragments were found united by bone at one point and by a powerful fibrous band not exceeding two lines in length through the rest of their margins. Firm ankylosis was found also to exist. The after-history of this case has been followed up: the fibrous band has not become relaxed; all trace of ankylosis has disappeared; the joint is as strong as the other, and no lameness whatever exists. Speaking of this case, Dr. Laffan remarked that the earliest apposition of the fragments is of great importance in these fractures, as the longer they are left asunder the more they gape, and the less satisfactorily will they be brought together afterwards. The great difficulty is how safely to effect this in face of the inflammatory consequences which usually attend them.

#### *Fever Notelets.*

The admission of 402 cases of fever into the Cashel Fever Hospital within four years afforded me opportunities for noting a few points in treatment and symptomatology. Delirium, when it partook of the character of the tremens kind, was combated with most success by Grave's treatment. The cold douche, local depletion, and tartar emetic were found most suitable to cases of the sthenic variety. Capillary bronchitis was perhaps the most formidable of all the complications which occurred. Dr. Laffan found turpentine the most efficacious remedial agent for the relief of this. As regards the different kinds of fever, typhus was sometimes exclusively present, at other times typhoid prevailed; and again, fevers of the simple inflammatory type predominated. From time to time there were many cases which—making every allowance for the undoubted existence of defaced, irregular, and anomalous cases of fever—could not be classed under any hitherto described variety. Dr. Laffan remarked that there were still fields open to the careful clinical investigator, and that as typhoid had had its separate identity completely established only within a comparatively recent

period, so there were many grounds, supplied both by abstract reasoning and clinical experience, for believing that there are yet other varieties of fever to be discriminated, and from whose discrimination we may reasonably expect some additional light will be thrown on the essential nature of fever itself. Careful records of temperature were taken twice daily in the most important cases, but the readings did not always accord with the results laid down by the leading writers on medical thermometry. Some remarkable cases of defaced scarlatina occurred from time to time; in all the diagnosis was clearly established by the context, yet in some the only symptom was hæmic dyspnoea with albuminuria; in others swelling of the cervical glands, and in others again the presence of albuminuria only. In all these cases the diagnosis was aided either by a history of previous scarlatina propinquity, or by subsequent contamination of non-infected individuals.

#### *Epithelioma.*

A remarkable instance of the arrest of a formidable case of this disease came under notice. The disease appears to have been caused, or at least promoted by frequent attacks of throat catarrh, in a constitution broken down by the combined influences of an Indian climate, excessive mercurial salivation, and hardships of all kinds. The back part of the pharynx was alone involved at time of admission, but the affection soon engaged the soft and hard palates, completely destroying the former, and eating a large hole in the latter. The disease has now existed for a period of three years, and during that time three temporary arrests have occurred, the last extending over a period of eighteen months to present date. His present condition is that of a person in moderate health, able to work, sleep, and eat, and the local appearances are those of entire quiescence of the affection.

#### *Stricture of the Urethra.*

A case of organic stricture deserves a passing word. It occurred in a man, *æt.* 40, had existed for some years, and had three times produced complete retention of urine, this affection being present at time of admission. No.  $\frac{1}{2}$  silver catheter was passed with some difficulty, and the man's present symptoms relieved. Gradual dilatation was then employed, and the stricture enlarged up to No. 12. The point of interest in this case is that it turned out from the history that the man had been operated on previously by the forcible dilatation method, and it therefore furnishes us with another instance of the want of permanent success following such operative procedure; modesty in prognosis, therefore, is the obvious lesson. The man left after some time, with instructions from Dr. Laffan to have an instrument passed occasionally, as the only preventive against another recurrence of his complaint.

#### *Hydrocele (supposed) of the Neck.*

An instance of what was deemed to belong to this affection was operated on lately. It occupied the right posterior inferior cervical triangle, in a young female. Dr. Laffan tapped with the aspirator, and found it to contain purulent fluid. The puncture was then enlarged, and the tumour injected with iodine from time to time. Complete obliteration ensued.

#### *Cases of Entropion.*

Two additional instances of this disease were operated on within the last few weeks. In one Crampton's operation was performed. The other case was selected for the performance of Von Graefe's operation for spasmodic entropion. Both promise well.

#### *Fistula in Ano.*

A case of this disease, in a labourer, *æt.* 35, came under notice. It was of the blind external variety, had existed for six months, and had been previously subjected to a variety of treatment. The case was treated by pressure and injections for three weeks without result. Dr. Laffan then cut the fistula open, laying the two cavities into one. Rapid cure was the result.

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"SALUS POPULI SUPREMA LEX."

WEDNESDAY, NOVEMBER 4, 1874.

## THE ACTION OF DRUGS.

## I.

At the present day a great deal of attention is being directed to the action of medicines, and new efforts are being made in all directions by various experimenters to obtain a reliable basis on which to found the treatment of disease. We may here call attention to the highly important researches of Professor Fraser, M. Sée, M. Choupe, M. Gubler, M. Dogiel, M. Byasson, Müller, and many other Continental experimenters. It is something to be grateful for that in this country similar awakening has occurred. We have only to mention the prolonged labours of the late Dr. Anstie, the well-known researches of Dr. John Harley on the vegetable neurotics, also Drs. Brunton, Dupré, Fothergill, and still more recently, the experiments of Messrs. Burness and Mayor on the horse and dog, the results of which are embodied in their work on the "Specific Action of Drugs;" and at the present moment the Report of the Committee of the British Medical Association appointed to investigate the antagonism of medicines is being published in instalments by the learned chairman, Professor Hughes Bennett. We must say that the devotion of the Association funds to such important researches is a redeeming point in the management of the Association, and worthy of all praise, and, considering the vast amount of labour bestowed on these investigations, the money devoted to it bears no proportion.

The Committee state that the object of the experiments was to ascertain by careful observation—

1. The physiological actions produced.
2. The minimum fatal dose.
3. The influence of one supposed antagonistic substance on the physiological action of the other when both were simultaneously injected.
4. The influence of the supposed antagonistic substance when introduced some time *before* the fatal one.
5. The influence of the supposed antagonistic substance when introduced some time *after* the fatal one.
6. The limits of the antagonism when such existed.
7. The performance in all cases of a crucial test consisting, when any supposed antagonistic action had saved the animal, in injecting the same dose of the active substance into the same animal a week or ten days afterwards. If death then took place, it was held that the two substances were antagonistic.

By such a method they hoped to ascertain, beyond the

possibility of doubt, whether one drug could really antagonise the fatal or injurious properties of another, choosing in the first instance, for experiment, such as exhibited the most powerful and unequivocal action. In this manner there have been investigated, during the four years over which the Committee's labours have extended, the antagonistic properties existing between—

1. Hydrate of chloral and strychnia.
2. Sulphate of atropia and Calabar bean.
3. Hydrate of chloral and Calabar bean.
4. Hydrochlorate and meconate of morphia and Calabar bean.
5. Sulphate of atropia and meconate of morphia.
6. Meconate of morphia and theine.
7. Meconate of morphia and caffeine.
8. Meconate of morphia and guaranine.
9. Meconate of morphia and infusion of tea.
10. Meconate of morphia and infusion of coffee.
11. Extract of Calabar bean and strychnia.
12. Hydrate of bromal and atropia.

We will now pass on to analyse the results obtained by the Committee, merely premising that the criticisms we make are offered in no carping spirit, but solely to set before our readers what we deem the true value of such experiments, and to note in how far they increase our knowledge of the action of drugs, and, while doing so, we hope to contribute our mite to the progress of therapeutics.

In the first place, it is evident that these experiments add to our knowledge of the physiological action of drugs, and thus may serve as guides to the therapeutic value of these drugs, and so may be made of immediate practical value in the treatment of disease.

Secondly, the other objects aimed at are also exceedingly useful; but we must express our regret that in the majority of cases rabbits were chosen as the subjects of experiments—as these animals are evidently particularly ill-suited for the purpose—a point to which we will call attention further on.

Twenty experiments were made on rabbits to ascertain the minimum fatal dose of hydrate of chloral, and the conclusion arrived at was, that twenty-one grains of this drug may be regarded approximately as the minimum fatal dose for a rabbit of 3 lbs. weight. Professor Bennett, moreover, adds that—

At the same time, it has been observed, both in this research and in others in which chloral hydrate was employed as a hypnotic, that not unfrequently a dose, which in the great majority of instances is not ordinarily fatal, may destroy life. This is a fact of considerable practical importance, and might be explained by the supposition that, in certain conditions of the blood or tissues, chloroform may be produced more rapidly than usual by the action, according to the theory of Liebreich, of alkaline salts in the blood on chloral hydrate. The effects produced by chloral hydrate are now so well known as not to require special description. The period of hyperæsthesia is well marked in the rabbit. Frequently a slight pinch will cause the animal to utter prolonged screams, which would not be so occasioned in the normal condition.

In connection with the above remarks, we may call attention to a recent article in the MEDICAL PRESS (July 29) by Dr. Burness, and also to page 81 of the work referred to above.

Next fourteen experiments with strychnia indicate that—The minimum fatal dose for rabbits of that drug is 1·96th of a grain for every 3 lbs. weight of animal, or 1·288th of a grain for every pound. Here also it must be



understood that the fatal dose is to a certain extent approximative; for in several instances animals died from a smaller dose, apparently from asphyxia produced by strong tetanic convulsions of the muscles of respiration.

Having thus determined the minimum fatal dose of the two substances, the action of both together was next investigated.

*Influence of Hydrate of Chloral on a Fatal Dose of Strychnia when both are given simultaneously.*

Professor Bennett concludes from twenty such experiments that chloral antagonises fatal doses of strychnia, and modifies the symptoms to a remarkable extent; while from eleven other experiments, in which the chloral was given after the strychnia, he concludes it is less efficient in counteracting the fatal effects of strychnia in proportion as it is administered at more distant intervals of time; while fifteen experiments in which the chloral was given some time previously to the strychnia, lead him to conclude that strychnia is not such a satisfactory antagonist to chloral as might have been expected. Professor Bennett adds that—

It was also observed that, in those cases in which the animals died notwithstanding the injection of strychnia, they died in profound coma, although, from the muscular twitchings and from the ease with which reflex spasms could be excited, it was evident that the strychnia was physiologically influencing the spinal cord. It would appear, therefore, that there is little hope of saving life after fatal doses of chloral hydrate by the subsequent injection of strychnia. Chloral hydrate acts, not only on the centres of the spinal cord, but also on the brain, as is evidenced by the profound coma following a large dose, and the injected condition of the membranes of the brain found after death. Strychnia, on the other hand, exercises no known influence on the brain; and, although it may stimulate the reflex centres of the cord, depressed in vital activity by the action of chloral hydrate, it cannot relieve the condition of the encephalon, and consequently, even though there may be muscular twitchings and even tetanic convulsions, the animal dies comatose.

Thirty similar experiments were made upon rats, from which similar conclusions were derived.

Professor Bennett thus sums up:—

It appears to be established from these experiments—

1. That, after a fatal dose of strychnia, life may be saved by bringing the animal under the influence of chloral hydrate.

2. That chloral hydrate is more likely to save life after a fatal dose of strychnia than strychnia is to save life after a fatal dose of chloral hydrate.

3. That, after a dose of strychnia producing severe tetanic convulsions, these convulsions may be much reduced, both in force and frequency, by the use of chloral hydrate, and consequently much suffering saved.

4. That the extent of physiological antagonism between the two substances is so far limited, that (1) a very large fatal dose of strychnia may kill before the chloral hydrate has had time to act; or (2) so large must the dose of chloral hydrate be to antagonise an excessive dose of strychnia, that there is danger of death from the effects of chloral hydrate.

5. Chloral hydrate mitigates the effects of a fatal dose of strychnia by depressing the excess of reflex activity excited by that substance, while strychnia may mitigate the effects of a fatal dose of chloral hydrate by rousing the activity of the spinal cord; but it does not appear capable of removing the coma produced by the action of chloral hydrate on the brain.

It is scarcely necessary to point out the vast importance of these results to practical medicine and the indications they afford, not only in cases of poisoning by strychnia,

but in cases of tetanus and other spasmodic diseases, reflex and central.

At a meeting of the Medico-Chirurgical Society of Edinburgh, on April 6th, 1870, and at the annual meeting of the Association at Newcastle in 1870, I demonstrated experimentally with what certainty rabbits might be saved after receiving a fatal dose of strychnia, by the injection of a solution of chloral hydrate. Take two rabbits of about 3 lbs. weight; inject under the skin of both 1.96th of a grain of strychnia, and then in one a solution of fifteen grains of chloral; in ten minutes the first one will leap into the air and fall down tetanic and dead; the other will go to sleep, and in about two hours will wake up as if nothing were the matter. A more certain antidote does not exist.

The results are what we might expect, when we bear in mind the physiological action of each drug, for if chloral be given first, we can quite comprehend that, by its action on the spinal cord, it may prevent the effects of the strychnia given afterwards; but given after a dose of strychnia, we can easily understand how limited is its power to prevent the poisonous actions of that drug, and, although we quite admit the force of Prof. Bennett's experiment before the Medico-Chirurgical Society of Edinburgh; yet, at the same time, we should hesitate before trusting to the same treatment in man, for we ought never to forget that the toxic effect of strychnia would be produced more rapidly on man than a rabbit, and with smaller quantities while it would be scarcely possible to bring the patient under the influence of chloral in sufficiently short time—in fact, would it not be preferable to give chloroform at once, and keep the patient under its influence until the poison be eliminated? And it must never be forgotten that, in almost all cases of accidental poisoning, the poison has been taken a considerable period before it is possible to administer any antidote. We can hardly accept chloral as a real *antidote* to strychnine.

Recently, Messrs. Burness and Major have published ("Specific Action of Drugs") experiments tending to show that morphia is an antidote to strychnia; and the MEDICAL PRESS of October 14 contains an article on this subject by Dr. Burness.

## HOMŒOPATHY AND THE MEDICAL PROFESSION.

THE entire medico-homœopathic press, comprising the *British Journal of Homœopathy*, and the *Monthly Homœopathic Review*, with the adventitious help of *Figaro*, whose trade it is to snarl, have combined in a violent attack on us in reference to the articles recently published by us on the subject of their speciality. We don't propose to enter at any length upon a reply to these articles, because they do not make any attempt at refutation of the theorem which we propounded. In reply to a public statement made by the President of the Homœopathic Congress to the effect that the homœopaths were subjected to persecution by medical men because they practised a particular theory of medicine, we wrote as follows:—

"The medical profession does *not* refuse to associate with homœopaths for any such reason, but, on the contrary, regards with the most perfect toleration the theory and practice of *similia similibus*. They regard it as unscientific and illusory, but they do not take upon themselves to say

that its practice is the result of anything else than a delusion. But they cannot say as much for the practice of infinitesimalism, which, the occasion obliges us to state plainly, they regard as a false pretence, the employment of which disentitles any person to associate with them.

"Medical men can imagine that homœopaths may honestly believe in the *similia similibus* theory, but they cannot be expected to conceive that the majority of the fraternity honestly believe in billionths, and they are therefore obliged to conclude either that homœopaths treat disease by effectual therapeutics under the pretence of giving infinitesimals, or that they pretend to treat disease by infinitesimals, well knowing that they are not treating it at all. This is the reason for the exclusion of homœopaths by the profession. It is for the public to say whether an injustice is thereby done to them."

This will be admitted to be a perfectly plain statement, which could be met only by proving that infinitesimalism is a *bonâ fide* scientific theory, which homœopaths can and do honestly believe and practise, and, therefore, that the medical profession act unjustly in refusing association with them in consequence of their adoption of it. We have not in either of the homœopathic journals found any attempt to prove this, but we rather find something like an admission that infinitesimalism is a part of homœopathy which its practitioners may or may not practise, although they still call themselves homœopaths (with the reservation, we presume, that they don't tell their patients their want of belief in that part of their theory).

"We have ever held," says the *British Journal of Homœopathy*, "that the principle *similia similibus* is the cardinal point, and not the infinitesimal dose. . . . We admit the utility of all other therapeutic methods experience has shown to be good, and hold ourselves free to make use of them when we think they will be advantageous for our patients. . . . We do not follow in a slavish manner the mode of applying the homœopathic law used by Hahnemann."

We want to know on what principle a disciple of Hahnemann who professes to believe that a billionth of a grain is necessarily and intrinsically the proper dose, feels himself justified in prescribing ten grains, which he *must* believe to be a highly injurious quantity? And we also want to know whether homœopaths who avail themselves of the option to oscillate between infinitesimalism and active dosage do tell their patients, when they choose to prescribe full doses, that in their particular case they have no faith in billionths, and mean to give full doses. We rather think not, and we rather imagine that their patient would—if they did so—probably refuse to take the allopathic dose, and set down as an arrant humbug a line of practice which thus halts between two opinions.

It seems to us that this defence of optional infinitesimalism makes the position of homœopaths worse than it was before. It is ridiculous to plead that infinitesimalism is a doctrine which a homœopath need not hold, and which, therefore, he may practise or not, as he sees fit. We assert that it is an essential tenet of homœopathy—in fact, in the public mind, it is the distinctive mark which divides homœopathy from scientific therapeutics, and without which (as far as patients can form an opinion) homœopaths would not differ very materially from allopaths. The pharmaceutical nomenclature of homœopathy, and the diction of every book on the subject, are our evidences of this fact; and yet the mouth-pieces of the

speciality maintain that "the infinitesimal dose is not a cardinal point," but that, on the contrary, homœopaths may set it aside when they like, and make use of "other therapeutic methods" whenever they find that infinitesimals are unavailing. What would be the verdict of Convocation as to the morality of a clergyman of the Church of England who subscribed to a declaration that the adoration of the Virgin and the temporal authority of the Pope among us were "damnable and heretical doctrines," and yet held himself at liberty to teach those doctrines to any one whose tastes or tenor of mind took that direction?

On this subject the *British Journal of Homœopathy* says:—

"As to the dose: before we ever heard of homœopathy some of the practitioners of that school were in the habit of giving doses only moderately below the strength required to elicit the physiological action of the drug; others pushed the dilution to what the first party deemed an extravagant length, and even held that the *very extreme of dilution was the corner-stone of homœopathy, and that to give medicines in the lower dilutions was allopathising*. As a matter of fact, we side with the former party, but we profess ourselves unable to draw the line where moderate dilution ends and extravagant infinitesimalism begins.

"But then the wisdom of the MEDICAL PRESS consists in knowing exactly the boundary between infinitesimalism and proper dosage; and, puffed up with this knowledge, it declares everybody a liar who humbly says he does not possess this knowledge and believes that it cannot be attained without scientific experiment."

It does not involve any great self-conceit to believe ourselves capable of drawing a line between infinitesimalism and physiological dosage. The intervening gulf is monstrous in its extent: on the one side lies physiology and scientific therapeutics, on the other a preposterous and inconceivable assumption—outrageous in its improbability, and incapable of any experimental proof. We don't pretend to fix a boundary where a medicine begins to exercise a physiological effect; but our common sense tells us that the lowest estimate of that limit must be vastly distant from the highest known boundary of honest infinitesimalism (if we can use the adjective)—so far removed, indeed, that it is an insult to that common sense to confuse the one with the other.

But, in fact, our charge against homœopaths is not so much that they practise what they do not profess, and profess what they do not practise, as that they acquire popularity with those who believe in their healing powers by pretending to a method of practice which they do not always carry out, and which they avow that they consider optional.

If they openly declared that experience had taught them the unwisdom and uselessness of Hahnemann's theory in certain cases, and that, in such cases, they would prescribe full doses, they would, in so far, be acting ingenuously. They do nothing of the sort: they say, expressly or impliedly, to their patients, "Come to us and be cured! We are the new light. No more nasty mixtures! No more of that terrible mercury that loosens your teeth and saturates you with health-destroying poison. Come to us, and we will cure you with nice little globules which *can* never do you any harm, and may be bought ready-made and taken by yourself, without the expense of the apothecary, or the fear of poison, and which are much more certain

to cure you than the drugs and drenches of the old-fashioned and obsolete allopaths!"

It is this cry which attracts nervous old ladies, weak-minded valetudinarians, and stingy old maids; and if the professors of homœopathy were once to declare that they sometimes gave globules, and sometimes gave medicine, and that sometimes infinitesimals were no use, the declaration would speedily bring the fabric of homœopathy to the ground and abridge the fee-income of its practitioners.

Once again we repeat that it is entirely untrue that homœopaths are put in Coventry for practising a theory of medicine which—however unscientific and unsupported—they may honestly believe in. They are refused association with the medical profession because it requires too much charity and too great credulity to suppose that they have honest confidence in the remainder of their theory.

We had almost forgotten the little snarl of our volatile contemporary *Figaro*. When an editor is paid to "do" leaders on little club scandals, bits of green-room gossip, and music-hall performances, it is expecting too much to imagine that he can write comprehensible truth about medical matters. Here is the expression of the editor's acquaintance with the history of medicine:—

"If a doctor discovers something new about the character of a disease, or an effective treatment, he is forthwith denounced as a quack. Most likely he will be professionally ruined; or, if he is fortunate enough to have a practice, in spite of his daring to be more clear-sighted than the rank and file, he is insulted, calumniated, and cold-shouldered by the profession."

Gentlemen who can "throw off" an *ore rotundo* statement of fact and opinion on any subject at a moment's notice have their value in a newspaper office; but it would be well if there were some one at hand to make sure that they do not incautiously publish a statement which is directly and obviously the reverse of fact, and the falsehood of which at once overturns the whole argument. The editor of *Figaro* is evidently the right man for homœopathic journalism, and we congratulate the Hahnemannists on having secured an advocate who is not restrained by ridiculous scruples as to truth or sense.

## A PURE WATER SUPPLY.

(Continued from page 380.)

It is because Mr. Homersham is well acquainted with the danger of drinking unwholesome water, and as thoroughly impressed with the necessity there is for directing public attention to the danger, that he treats the question of a pure water supply in no apathetic spirit. He wishes to rouse a Government pledged to a *sanitas sanitatum* policy to the great importance of a pure water supply for the people free from all the attendant risks of mercenary water companies. If the Government will but take up the subject in an earnest spirit, there will be at once an end to a lavish expenditure of money to secure the monopoly of a dirty water supply taken to Wakefield and Sheffield, or any other town in the kingdom. Mr. Hogg's report of various specimens of water taken from the Wakefield mains, and the Sheffield Waterworks Company's reservoir, the "Godfrey Dam," confirms in every particular the statements made by Mr. Homersham as to their organic impurities, which arises from the fact that a few large cities derive their supply from natural lakes; many others from rude artificial basins or lakes,

formed by placing an earthen embankment or dam across a suitable valley that serves to collect together and store the perennial stream, and the flood waters that, after great and sudden falls of rain, flow down the valleys from above. These dams form lakes when full that frequently cover from one to two hundred acres of land with water, shallow at the upper end of the valley, and from 80 to 100 feet deep lower down near the dam. Sometimes the lakes are full to overflowing, at other times nearly empty. The sides and bottoms of the lakes for the most part consist of the natural surface of the land; the mould, grass, trees, shrubs, and other vegetation growing on the ground that forms the inside being rarely or never removed, but merely covered with water. The area of the surface of uplands that drain into such lakes vary from one thousand to five or six thousand acres, and large portions of such areas are often covered with peat, heather, and grass, frequently well stocked with grouse and sheep. The flowing stream and the rapid floods necessarily carry with them the leaves, blossoms of trees and shrubs, the droppings of birds and animals, and portions of the peat and other impurities into the lakes; in this manner the bottom and sides get covered in many parts with organic matter that soon decays, and with offensive mud. Living organisms find a congenial habitat in the mud and in the water, and rapidly increase and multiply there, more especially in the warmer seasons of the year.

The languid dirty stream, "the Calder," whence the present supply of Wakefield is drawn, is as narrow as a canal as it passes the town. It not only receives the sewage of the district, but the waste products of numerous large manufactories located on its banks, the refuse from which at times imparts a deep brown colour to the water for miles. The Don is little better, as its waters are exposed to contaminating influences exceedingly prejudicial to health, as it courses along densely populated districts.

During warm weather and an increased temperature, both animal and vegetable organisms rapidly multiply in such waters, and as a considerable quantity of organic matter is held in solution, no filtration will render them wholesome, or convert them into good potable waters. The ova of minute animal and vegetable life invariably find their way through the best filtering beds. The paramœcium animalcules, it is well known, cause serious forms of illness, diarrhoea, &c. Even animals suffer from drinking water in which these animalcules abound; while some other larval forms of animals living in water have to pass through the stomach of the higher animals before they are known to affect human beings. The anguillula fluvialis, for instance, that infests the intestinal canal of fishes, is believed to originate the dreaded trichinina disease. The microscope has more recently detected the presence of infusorial animalcules (bacteria) in the blood of some hospital patients after operation, and of those who die from blood-poisoning. Minute vegetable fungoid bodies attack fish and often kill them; and cows and sheep, as well as fish, have been known to be poisoned by drinking water from a stream contaminated with putrescible vegetable matter, the refuse of a starch manufactory on its bank, and which no filtration would remove or separate.

"Water taken from the Godfrey Dam," says Mr. Hogg, "had a yellowish hue, and on standing half an hour a considerable deposit was thrown down. On placing some of this under the microscope, it was seen to consist of masses of organic matter, living animals, &c., as the well-known infusorial animalcules, entomostraca, daphnia pulex, some of which were visible to the naked eye, paramœcium, anguillula fluvialis, a species of eel-like worm, amoeba, &c., together with spores (protococcus pluvialis), portions of coniferæ, desmids, and numerous fragments of decaying vegetable matters, such as are usually found in river and pond waters, the normal temperature of which in summer is not much below 70° Fah."

Several other specimens drawn from the Wakefield mains and near the head of the river Don were of a brownish tinge, and on agitation the nose detected a faintish sewage odour; on standing, the amount of sediment was not

large, but this, on examination, proved to be organic matter. It consisted of the outer cases of entomostraca (water fleas) of a considerable size, infusorial animals, wheel animalcules, stentors, paramœcium, cercomonas, &c., vegetable matter, confervæ, diatoms, and decaying fragments of peat and moss.

In striking contrast to the Wakefield and Sheffield reservoir waters examined is a specimen procured from a deep source sunk in the red sandstone geological formation, the normal temperature of which is 48° Fahr.

"This water, on standing, remains clear and bright. It is perfectly free from organic matter of every kind. The microscope discovered only some minute mineral matters. It is fresh and agreeable to the taste, colourless to the eye, and pleasant to the touch—a moderately soft washing-water, and in every way suitable for dietetic and household purposes."

In concluding his report, Mr. Hogg observes:—

"There are one or two points that deserve particular attention. First, as to the tenacity of life of the lower forms of animals. Very many animalcules' eggs are but little affected by temperature; the ordinary heat employed in culinary operations does not always kill them, nor a long drought or intense frost destroy their vitality. Secondly, as to the relative hardness or softness of potable waters. These are terms which convey very little information as to their salubrity, for while no one has asserted that a moderate quantity of mineral matter, carbonate of lime, in water, is prejudicial to health, every medical man of experience will agree with me that living organisms, and even small quantities of putrescent organic matters, are extremely dangerous. There can scarcely be a second opinion that water so contaminated is insalubrious, and unfit for drinking and culinary purposes, and since this is unavoidably the condition of surface waters, we must all hope to see the time when our towns, ceasing to be supplied with the waters of rivers or lakes, will derive their drinking-water wholly from deep springs."

## Notes on Current Topics.

### University of Dublin.

At a meeting of the Provost and Senior Fellows of Trinity College, held on Saturday, 17th October, 1874, it was resolved:—

1. "That the Senior Lecturer, in conjunction with the Medical Registrar, be directed to recommend examiners to assist the Professors in the Medical School at the examinations in botany, physics, chemistry, and materia medica.

2. "That the Medical Registrar be directed to give every facility to the visitors of the General Medical Council for the inspection of examination papers and of the answers thereto, but not to resign the custody of these papers.

3. "That a three months' course of practical instruction in animal histology be added to the Curriculum for the degree of M.B., under the superintendence of the King's Professor of the Institutes of Medicine; and that the Bursar of Trinity College be authorised to expend a sum not exceeding £110 in the purchase of instruments for that purpose."

These three ordinances of the Board are especially interesting when read in connection with the views recently expressed by the Medical Council. The first of them is apparently framed with the intention of meeting the objection that, in the University, the majority of the

examiners have hitherto been the lecturers in the School of Physic, and that therefore the students of other schools, who had not the opportunity of acquainting themselves with the personal "tips" of the lecturer, must necessarily be at a disadvantage before the examiners. Henceforth, a candidate will have an equal chance of being tested by an extra-academic examiner in the subjects named in the ordinance; but we do not understand why the reduplication of examiners should be confined to these subjects and not extended also to anatomy, surgery, physiology, and medicine.

The second ordinance is an endorsement of the view taken by the Council of the College of Surgeons, and by this journal, that it is neither advisable nor just to the students that the visitors of examinations should be permitted to carry away the written papers of candidates and publish them, as was done in the last report, "with all their sins upon their head." The visitors have a right to expect nothing more than a fair and full opportunity of forming an opinion as to the appropriateness of the questions, and as to whether the marks given fairly represent the merits of the answers. These points can be as fully ascertained by an inspection by the visitors as by the examiners; and we hope that the Medical Council will see that this demand is untenable, and will not again make it the subject of resolutions.

The third ordinance is interesting, as indicating a change in the nature of the courses delivered under the name of "Institutes of Medicine." For many years, under the Professoriate of Dr. Law, the lectures dealt almost exclusively with pathological physiology and practice of medicine. Since Dr. Purser's appointment, the Professorship has been, to a certain extent, erected into a Chair of Practical Physiology, such as has been so ably developed by Dr. Burdon Sanderson and others. This ordinance is the first introduction of the subject into Irish medical schools, and it evidences the advanced tone of the teaching which is carried out under the supervision of the Board and Professor Haughton. The influence of that gentleman as Medical Registrar has always been in favour of the widest expansion of scientific and educational free trade in Trinity College. By degrees the Board is—at his suggestion—abolishing all restrictions which had been set up for the protection of the school, and it is gratifying to observe that this creditable and progressive policy has been attended with advantages to the School itself and to the University which the old system of restrictive protection never could have produced. *Macte Virtute!*

### Sanitation in Dublin.

THE Public Health Committee of the Dublin Corporation have had their meeting for appointment of officers under the Public Health Act, and have, as we predicted, done their best to combine the gratification of some neat jobbery with the desire to defeat the objects of the Act and the intentions of Parliament. The following are the appointments and salaries: James Boyle, Esq., C.E. Executive Officer, £300; Dr. Mapother, Consulting Medical Officer, £300; Dr. Cameron, Medical Officer and City Analyst, £300; thirteen physicians of the City Dispensary Districts at £10 each in addition to their present emoluments. Sanitary sub-officers and inspectors

of nuisances : Mr. Edwards, £26 ; Mr. Webb, £46 ; Mr. O'Connor, £52. There were also appointed as sanitary sub-officers the following police officers : Inspector Halligan, £160 ; Inspector Bury, £160 ; and three sergeants at £89 14s. each, one sergeant at £5 4s. nominal, two at £84 10s., two at £81 18s., five acting-sergeants at £2 12s. nominal, their salaries being paid by the Commissioners of Police. Clerk, £52 ; assistant to city analyst, £39 ; keeper of the disinfectant chamber, £39 ; and keeper of the Morgue, 15s. per week.

The only point which we think worthy of notice, is that the Committee have imposed upon the city the expense of an entirely unnecessary number of sanitary sub-officers, to do the work which is vested in the medical officers of health, or dispensary medical officers. The Legislature have considered the medical officers to be the proper persons to inspect and report to the Committee ; but the Committee will not be denied their inevitable job, and, while they declaim against the great expense of paying the medical officers proper salaries, they, at the same time, decide to give handsome incomes to policemen to do the same work. Truly, never was a community so burthened with an incompetent and unscrupulous administration as is the "second city in the Empire."

We understand that the dispensary medical officers have unanimously refused the proffered insult—we will not call it a salary.

#### The late Dr. Thomas Ballard.

A FEW of the private and professional friends of this much-respected practitioner have determined, in token of their friendship and esteem, to place a simple but fitting memorial of him over his grave. Dr. Barratt, of 8 Cleveland Gardens, Hyde Park, has kindly undertaken to act as treasurer.

#### Archives of Dermatology.

A NEW journal, under this title, appeared on the 1st of October, and will be issued quarterly. It is American in origin, and is intended to represent American dermatology, but every effort will be put forth to make its scope cosmopolitan by devoting nearly or about one-half of each issue to the digest of current literature. Each issue will consist of 96 octavo pages, with suitable illustrations as required, special attention being given to photographic work and microscopy.

#### Compulsory Removal of Infected Patients to Hospital.

THE town of Ballyraggett, in the county Kilkenny, has been the scene of an outbreak of typhus, and a question was thereupon put by the guardians to the Local Government Board respecting their authority to enforce the removal of an infected patient to hospital. The Local Government Board replied as follows :—

"Local Government Board, Oct. 17, 1874.

"SIR,—The Local Government Board acknowledge the receipt of minutes of the 12th inst., containing a resolution in which the guardians request to be informed as to the course they should adopt in regard to the cases of persons suffering from fever who refuse to be removed to hospital ; and in reference thereto, I am to state that the 26th section of the Sanitary Act, 1866, and the 54th section of the

Public Health Act, should be read together ; the former, in order that, on the certificate of the medical practitioner, the necessary order for the removal of a patient to an hospital within the sanitary district, may be issued, and the latter in order that, in the event of the order for removal being disobeyed the culpable party shall, on conviction of the offence, before the magistrates, be liable to a penalty not exceeding £10."

#### Medical Microscopical Society.

THIS Society held the first meeting of its second session at the Royal Westminster Ophthalmic Hospital, on Friday, the 16th ult. The number present sufficiently testified to the flourishing state of the Society. A paper on "A New Method of Micrometry," communicated by Mr. John Gorham, of Tonbridge, was read by the President, and there was a good exhibition of specimens and instruments.

#### Spurious Teas.

AT a recent meeting of the City Commissioners of Sewers it was stated that there were millions of pounds of spurious tea in the wharves and warehouses of the city of London, some of which had been accumulating for thirty or forty years. The attention of the sanitary authority having been directed to the fact, it is to be hoped they will not let it be distributed to the public.

#### The Treatment of Wounded in Time of War.

IT has been officially notified to Surgeon-Major Dr. Porter, Assistant Professor of Military Surgery in the Army Medical School, Netley, that he has gained the Empress of Germany's prize for the best essay "On the Treatment of Wounded in Time of War." Surgeon-Major Porter was one of the army medical officers selected to accompany the English Ambulance, under the auspices of the Red Cross Society, in the late Continental war.

#### In Memoriam.

A HANDSOME painted window has been placed in the chancel of Petworth parish church to the memory of the late Mr. William Morris, M.R.C.S., L.S.A., of that town. The subjects of the window are "Peter and John at the beautiful gate of the Temple," and "Peter raising Dorcas to life ;" and below it is a brass plate stating that the window is erected in memory of Mr. Morris by many of his patients and friends "as a witness of their esteem for him in his life and their sorrow at his death."

#### General Medical Council.

ON the 7th inst. a representative of the University of bridge is to be elected, Professor Humphrey's term of office having expired. As re-election seems popular in the Council, and a better representative cannot be found, we look for no change.

DR. H. B. DONKIN, late of St. Thomas's Hospital, has been elected Assistant-Physician to the Westminster Hospital.

THE Lowestoft port sanitary authorities have determined, on the advice of the Local Government Board, to bury at sea all who die on their cholera ship.

### The Vacant Coronership.

THE lamented death of Dr. Lankester leaves vacant the office of Coroner for Central Middlesex. Dr. Hardwicke is a candidate. He has for twelve years been Dr. Lankester's deputy, and displayed conspicuous ability. The manner in which Dr. Hardwicke conducted the inquiry into the late explosion at Regent's Park, elicited the approval of all capable of judging, and we hope the electors will promote so well tried a servant to the place occupied by Dr. Lankester.

### A Cruel Joke.

A SURGEON living in a colliery district near Thornley was recently made the subject of a very cruel joke, says the *Pall Mall Gazette*. Word was brought to him that a terrible accident had occurred at a colliery in the neighbourhood, and he was urged to lose no time in going there with instruments, splints, lint and bandages. He hurried off accordingly, most elaborately prepared, and, the news having spread, he was followed with no less haste by numbers of the villagers. An accident had really happened near the pit's mouth. In the high gale which did so much serious mischief a few days ago a travelling waxwork show which had been exhibited to the miners was blown over, and the surgeon found that the patients for whom he had run himself out of breath were life-like figures of Mary Ann Cotton, who had lost one of her arms; Tropmann, the French murderer, whose skull had been fractured; and several other inmates of the "chamber of horrors," who had broken legs or arms, or received injuries more or less serious. The surgeon's disappointment and disgust deserve heartfelt sympathy. On public as well as on private grounds, too, these unseemly jokes should be discouraged. It would be exceedingly convenient if, in colliery explosions and railway accidents, lay figures could be blown up or smashed in the place of the actual sufferers. As, however, science has not hitherto perfected any such system of vicarious sacrifice, very awkward consequences may ensue if practical jokers permit themselves to trifle too often with medical men, and thus lead them to stay away when they are really wanted.

### "Fever in London."

WITH a view to united and prompt action to stamp out the fever now prevalent in some parts of London, the Local Government Board have called upon the Metropolitan Asylums Board for returns as to epidemics, and they show that at the Homerton Fever Hospital there are now 111 cases of scarlet fever, 21 of typhus, 60 of enteric, and 9 of other diseases of a fever character—total, 201. At Stockwell, 73 cases of scarlet fever, 35 of enteric, 8 of typhus, and 3 of other forms. At Homerton the small-pox side has been called into requisition for fever, and the managers have other accommodation in preparation.

DR. PAYNE, of St. Thomas's Hospital, is a third candidate for the Downing Professorship of Medicine.

THE Western Infirmary, at Glasgow, has been formally opened, and 200 beds will at once be occupied.

ENTERIC FEVER prevails at Over Darwen, Lancashire, and also at Nottingham.

THE *London Gazette* announces that H.R.H. the Duke of Edinburgh has appointed Dr. Arthur Farre, F.R.S., to be Physician-Accoucheur to the Duchess of Edinburgh.

THE Charing Cross Hospital Medical Society, which ceased to exist in 1869, on account of the paucity of students, has been revived, under the Presidency of Mr. Hird, dean of the Medical School.

MR. DARWIN, Mr. Herbert Spencer, Mr. Matthew Arnold, the Marquis of Salisbury, and Dean Stanley are all talked of as candidates for the Rectorial Chair in the University of St. Andrews.

WE regret to announce a report which has reached us that Dr. Foott, J.P., was killed near Mallow on Friday, by the fall of a wall, which some workmen were taking down.

WE are pleased to hear that the stipend of the present Demonstrator of Anatomy in the University of Cambridge is to be increased from £150 per annum to £230 per annum out of the chest, the increase to begin from Michaelmas, 1874.

THE jury who sat upon the body of a woman who died in St. Bartholomew's Hospital from alleged hydrophobia gave their verdict on Friday last, that deceased came by her death accidentally, thereby inferring that hydrophobia was not the cause.

DR. STEPHENS, on behalf of the Local Government Board, last week conducted an investigation into the sanitary state of Barton-upon-Irwell. The usual defects were found, and water was so scarce that Dr. Stephens encountered a man going round selling it.

IN London last week 2,556 births and 1,293 deaths were registered. The births exceeded by 233, whereas the deaths were 197 below the average in the corresponding weeks of the last ten years. The annual death-rate, which in the previous week had been twenty-one, declined to twenty per thousand of population.

THE weekly return of metropolitan pauperism shows a total number receiving relief of 91,066, of whom 34,716 were in workhouses, and 56,350 out-door. Compared with the corresponding weeks in the years 1873, 1872, and 1871, these figures show a decrease of 7,233, 12,260, and 24,408 respectively.

THE epidemic of typhoid fever which has been raging in Lewes for some weeks is slightly abating. A great number of persons have been attacked. A house-to-house inspection is being made, disinfectants are freely distributed, and neither labour nor expense will be spared in endeavouring to stamp out the disease. The annual procession of bon-fire boys has been prohibited for



the 5th with the same object. Dr. Thorne Thorne, from the Local Government Board, has, during the past week, been endeavouring to trace the first cause; but up to the present time no satisfactory conclusion has been arrived at.

## Transactions of Societies.

### ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, OCTOBER 13TH, 1874.

C. J. B. WILLIAMS, M.D., F.R.S., President, in the Chair.

ON THE PATHOLOGY AND TREATMENT OF CHOLERA BY THE SUBCUTANEOUS INJECTION OF CHLORAL HYDRATE.

By AUGUSTUS R. HALL, Surgeon, R.A.

(Communicated by Dr. GEORGE JOHNSON.)

SURGEON HALL said that the treatment of the collapse of cholera by the hypodermic injection of chloral hydrate, had been, so far, comparatively successful. The Government of India had published reports on the subject in their *Gazette* of February 14th, 1874. The personal experience of the writer showed that the diarrhoea was perfectly painless, and the vomiting unattended with nausea. The pulse was at first hard, and then small, before ceasing to be felt. Meanwhile, the heart contracted forcibly, showing there was no tendency to syncope. The cramps in the voluntary muscles caused the real pain in cholera. The voice was squeaky before it became sepulchral. There was suppression of urine. As a rule, there was no loss of consciousness. Great thirst was always present. The comparative rapidity with which persons who survived an attack generally regained their health, tended to prove that no very serious permanent changes had taken place, either in the blood or in the intestinal canal. When water and oxygen could get to the blood, it performed its functions properly, and the epithelium was not apparently thrown off from the intestines to any great extent during life. The symptoms of collapse could be explained, chiefly by the experiments of Brown-Séquard, by great irritation of the sympathetic nervous system. The morbid influence of cholera exercised, probably, a stimulating action on the vaso-motor centres, producing increased heart action, contraction of the muscular walls of all the arteries, and at first, augmented blood-pressure. Dr. Parkes had shown the frequency of copious micturition of limpid urine in the early stage. This might be intimately related, according to Traube, to high arterial pressure. The heart contracted forcibly, but could not dilate normally, its muscular walls being spasmodically affected. The excessive activity of the vaso-motor centres was so great that the inhibitory or dilating action of the vagus on the heart was not allowed to control it. The left heart got very little blood from the lungs on account of the contracted pulmonary arterioles not letting it pass, so it could only send that little into the arteries; hence the small pulse in the latter stage. The right heart could not pump the blood, forced into it by the gorged vena cava, into the lungs, and was therefore full, and found so after death. The gorged systemic veins apparently caused the blue colour of the face and skin. The peculiar choleraic voice was not due to want of air passing into and out of the lungs. It was presumed to be caused by the abnormal condition of the nerves which supply the larynx. The cramps might be caused by the cutting off of the blood supply to portions of the muscles by the contracted state of their arterioles. Dr. C. B. Radcliffe had stated that contraction of muscle is a temporary death. The vomiting was apparently caused by the irritated state of the nerves supplying the stomach. The evacuations from the bowels might be the result of transudation from the distended nervous radicles of the portal system. The vomiting and purging seemed to be of secondary importance. It was the vaso-motor centres that produced asphyxia by their action on the heart and lungs, and to these our whole attention should be directed. The urinary bladder was generally contracted "to the size of a walnut." Abortions frequently occurred in pregnant women, the fetus being often expelled alive, indicating spasmodic contraction of the uterus as the cause. The perfect consciousness of the patient during the attack made it probable that there was no tendency to real

syncope. It was presumed that there was spasm of all the arteries of the body, and that the cause of death was asphyxia. To overcome this, pure sedatives, which soothed the irritated nerve-centres, and so put a stop to spasms, were recommended. It was of no good to give medicines by the mouth, as they were generally rejected at once; they must, therefore, be introduced subcutaneously. Practically, the best agent was chloral hydrate, which was a powerful sedative without exerting any primary stimulating action. The strength of the solution should be one part of chloral in ten of water. Ten grains in one hundred minims of water would generally suffice, put under the skin of the arms or legs in four or five different places. If the solution were stronger than this, it would probably cause ulceration. The patient generally craved for cold water, and this might be given in any quantity; but no opium or stimulants was to be given during collapse. If reaction did not set in within half an hour, the injections might be repeated. The secondary fever was probably a condition allied to heat-apoplexy, in which there was relaxation of the arterial walls, the result of exhaustion. In this state, experience had shown that the administration of quinine, with stimulants and tonics, was the best treatment.

## Correspondence.

### POSSIBLE ARREST OF HYDROPHOBIA, OR WATERSHY.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—In some recent communications addressed to the medical journals, I endeavoured to show that, if hydrophobia, or watershy, as I think we ought to term it, were dealt with differently—differently, I mean, from the way in which it is commonly dealt with, we might perhaps receive more favourable results. Hitherto hydrophobia, or watershy, has proved invariably fatal. I showed that in cases of poisoning, in cases where certain vegetable and animal poisons were the toxic agents, if only we could keep the patient for a time alive, the poison wore itself out, or was eliminated. This has proved the case when snake-poison was treated with large doses of alcohol, or when diluted ammonia was injected into the veins. It is notably the case with typhus poison and lues venerea poison. In the case of curara, a vegetable poison, artificial respiration, the respiratory muscles being for the moment paralysed, sustains life and averts otherwise inevitable death. It is the same, *mutatis mutandis*, in chloral-poisoning. In animals poisoned by croton chloral, artificial respiration, observes Dr. Oscar Liebrich, restores the heart's action, and life may be saved. In hydrophobia, if only we can maintain the duration of life a little, the effects of the poison, I would urge, might wear themselves out, and the individual be preserved. In hydrophobia, as everyone knows, the affected person cannot drink. Three pounds of water always, and sometimes even four or five pounds, are demanded by the economy. Now, this fluid, I maintain, might be injected into the intestines, or into the veins; in this case the water should be tepid. The privation of water alone, the toxic action of the hydrophobic poison apart, must be fatal. If, now, the sufferer were placed under the influence of chloral—and I have shown with what immense relief chloral was injected into the veins in cases of tetanus—there would be no difficulty in supplying the economy with water whatever. The hydrophobic spasms would probably be allayed, and the sufferer would be provided with drink, or at least water, which, in the ordinary course of hydrophobia, he is entirely unable to swallow. I have described the relief which attended the venous injection of chloral in cases of lock-jaw, and I may now add asthma. Assistant-Surgeon Chunder Banerjee, as Surgeon-Major Baillie, of Bhaugulpore, relates, (a) injected three grains of chloral, dissolved in twenty minims of water, subcutaneously, into the back of the neck of a woman labouring under intense asthma. In ten minutes after, the spasm had entirely ceased, and easy natural respiration had taken its place. I am urgently desirous that such members of the profession as may hereafter have an opportunity of witnessing cases of hydrophobia should have immediate

(a) See *Indian Medical Gazette*, June 1, 87

recourse to subcutaneous injections of chloral: the patients would undoubtedly be more or less relieved, water could be introduced into the system, and possibly the disease itself subdued.

I am, Sir,

HENRY MACCORMAC, M.D.

Belfast, October 26th, 1874.

## Gleanings.

### Fungous Origin of Erysipelas.

DR. WLADIMIR LUKOMSKY publishes in *Virchow's Archiv.*, 60ten Bd., 3tes u. 4tes Heft, the results of certain researches on the origin and nature of the poison of erysipelas.

After some preliminary remarks on various modern views of the affection, Dr. L. gives notes of two series of cases, as well as of experiments made upon animals, &c.

His conclusions from the first series are as follows. The following facts, he says, are established:—

1. The conclusions of other authors are confirmed, that severe and rapidly-spreading phlegmonous inflammation of the subcutaneous connective tissue, in which the cutis also takes a decided part, may be developed by the hypodermic injection of fluids containing organic germs.

2. The micrococci multiply rapidly in the connective tissue, and spread principally through the serous canals and lymphatic vessels.

3. This inflammatory process may be brought about by a fluid containing organic germs which at the same time shows no signs of putridity, as, for instance, fluids taken from living individuals. It follows from this that the existence of organic germs cannot in any way be regarded as a criterion of putridity.

4. Putrid (dead) fluids which do not contain micrococci and bacteria are not in themselves sufficient to bring about anything more than a local inflammation, which has no disposition to spread further.

5. The contents of erysipelatous blebs free from organic germs cannot cause, where subcutaneously injected, any symptoms of disease.

From his second series of experiments Dr. Lukomsky draws the following conclusions:—

1. Putrefying materials containing organic forms being placed in contact with a wound immediately bring about severe local inflammation, which may also comprehend the surrounding skin. This wandering disease-process cannot be distinguished in its general symptoms from the so-called erysipelas occurring in human beings.

2. The micrococci and bacteria penetrate the connective tissue by means of the serous canals, and wander by these paths still further.

3. They are found especially in the peripheric portions of the localised inflammation, and more particularly just where the inflammatory process is making most rapid progress.

4. Erysipelas moves preferably in certain directions. When, for instance, the wound in these investigations on animals lies in the middle line of the back or in its immediate neighbourhood, the process spreads with equal rapidity on one side and on the other towards the abdomen, more slowly behind, and still more slowly forward.

### Epidermic Grafts from the Skin of the Rabbit.

*L'Abeille Médicale*, No. 17, August, 1874, contains an article on this subject extracted from the *Rev. Méd. de l'Est*. After stating the fact that animal grafts are practicable, and giving various synonyms for the term "graft," the writer gives the following precautions for conveniently performing transplantation:—

1. If the borders of the ulcer are thick and the surface suppurates abundantly, they can scarcely be expected to heal. It is necessary, therefore, to alter the condition of the sore. For some days alcoholic washings should be used, and the dressing should contain glycerine. Transplantation should not be resorted to until the surface of implantation is covered with firm granulations and even a little dry.

2. Preparation of the graft. A healthy rabbit should have a small portion of the skin of the back carefully shaved off at some point where the hair has been previously removed

with sulpho-sulphuret of calcium. The fragment removed should contain a portion of the dermis and epidermis alone.

3. The fresh fragment should be transported to a portion of the sore previously designated, and which should be prepared by a few small incisions with a bistoury.

4. The fragments of epidermis should be fixed in its place by small strips of oiled paper, the ends of which extending beyond the edge of the sore are fixed by means of collodion. The wound should then be covered with a piece of linen soaked in glycerin and fenestrated; over this a compress of charpie, also soaked in glycerin or glycerole of starch, and a bandage over the whole. Collodion may be used to aid in fixing the bandage. The importance of using every means to prevent the graft from slipping is easily understood.

5. If the wound is in good condition, and but little suppuration is taking place, the dressing need not be removed for forty-eight hours. If, on the contrary, a certain amount of pus continues to be formed in spite of the precautions taken, the dressing should be changed at the end of twenty-four hours. If the fragment becomes fixed, it is slowly transformed, the pigment disappears, the animal epidermis is gradually dissolved, and there remains a mucous surface which easily cicatrises.

The cicatrix thus obtained has remarkable vitality, and presents a much better appearance than cicatrices obtained by other means.

The writer concludes by remarking that there results from the facts stated the following:—

1. Transplantation of epidermis from the rabbit to man can be performed with success.

2. In order that cicatrisation shall take place, it is necessary that the graft shall be perfectly fixed. The operation then goes on from a centre of new tissue within the sore, which becomes a centre of cicatrisation.

As soon as the extraneous integument once becomes firmly fixed, its pigment disappears, its epidermis disappears, and its cicatrix is from that time part and parcel of the human tissues.

### Chloroform in Eclampsia Infantum.

C. F. KUNZE (*Allg. Med. Central Zeitung*, April 1, 1874, No. 26).

In by far the greater number of cases of convulsions, we are unable to detect the cause, and it is a well established fact that such convulsions can take place without important organic changes being present. The conditions causing the convulsions pass rapidly away, and it is not even necessary that there should be any cerebral congestion. In all probability, we have to deal with an abnormal irritability of the nervous system. As proof of this, we find no increased temperature of the head, no injection of the bulb of the eye, no vomiting; there is no constipation, and no inflammatory pulse.

The author reports the following case: M. R., 11 years old, stout built girl, had, in her fourth year, a sickness, in which she had an attack of eclampsia infantum. The attack lasted two or three hours, and ceased after the administration of a stimulating enema and cool applications to the head while in a warm bath. No bad effects were left behind.

January 16, 1874.—Without known cause, was found unconscious, with general convulsions. The author being called, ordered three leeches to forehead, enema of salt and water, and an ice bladder to the head, although he found neither increased temperature of the skin nor of the forehead, and the child had had a regular operation the day before. No errors of diet had been made, the abdomen was soft, and there was nowhere tenderness on pressure. The pulse was 120—130 in the minute, and not particularly hard. At his second visit, four hours later, the leeches had drawn, and there had been a dejection; the head was cool, and yet the convulsions had not ceased. As the child had become cyanotic, and the lips were blue, and the respiration very rapid, with tracheal râles, the present condition having lasted eight hours uninterruptedly, it was expected that death would soon ensue. An attempt was then made with chloroform dropped upon a handkerchief. The convulsions ceased after a few inhalations, but consciousness did not return. The handkerchief being removed, the convulsions returned after a few minutes, and the chloroform was re-applied with equally good result, though but for a short time. Being then applied for double the time, the convulsions stopped for a quarter of an hour. With the next return, the application was carried to full narcosis. The child then began to breathe more slowly, the pulse went down to 100,

the tracheal râles diminished, the blue lips became red, as well as the cheeks, and after half an hour the child opened its eyes and returned to consciousness. After that, there was no return of the convulsions. At the evening visit, the child was somewhat excited, but otherwise there was no disturbance of any kind. A solution of bromide of potassium (5.0 grammes ad 120.0 grammes water) was prescribed, and since (six days afterwards) there was no return of convulsions, and the child was apparently in complete health.

### HOSPITAL SATURDAY.

AT the very inception of the Hospital Saturday movement in London we counselled caution, and expressed our great apprehension that it would have the effect of conferring upon all the opulent artisan class of the metropolis the right to demand hospital attendance and medicine in consideration of their donation of a sum which is utterly insignificant when placed beside the weekly expenditure of the same class for liquor and tobacco. We are sorry to observe that the result has realised our worst expectations. In spite of the benevolent, though probably mistaken, efforts of Archbishop Manning and other gentlemen—in spite of the banners and processions and street stalls, and all the other adjuncts to the getting up of charity steam, which cost no less than £1,100, the artisans have not contributed one-tenth of a farthing per annum per man. This is the spectacle cut by that great class which is to revolutionise everything, and which numbers its hundreds of thousands, in the receipt of plentiful wages—this the contribution to charities founded and maintained specially for their benefit. A penny per week for twelve months would have yielded £100,000. And what do they give? We are ashamed to mention the sum—it is such a miserable attempt at liberality; and yet it entitles each artisan to button up his pocket, spend the doctor's fee on some article of luxury, and hie him as a subscriber to any charity in the metropolis. No matter! the wire-pullers have been advertised to their heart's content, and surely that is something for the money, even though they have been compelled to appeal to the wealthy to defray the expenses of the fund.

### SURGICAL SOCIETY OF IRELAND.

THE first election of the Council of this Society by the members was held on last Monday, and marks a new epoch in the life of the Society. Hitherto the Council has been self-elective, subject to the approval of the Council of the Royal College of Surgeons, the cost of reporting and other expenses incident to the meeting being borne by the College. Within recent years considerable dissatisfaction has existed amongst the members of the Society because the subjects and authorship of communications to be read at the meetings were not publicly notified, as is done in all other societies. That they should be so notified was last year agreed to by the Council, and our readers have had the advantage of that arrangement by the regular announcement of the papers to be brought forward at each meeting. In spite of this concession, the members have been still dissatisfied that the election of the Council has not been vested in them, and a resolution was carried at the last general meeting of the College to the effect that the exist-

ing system of election was unsatisfactory. In accordance with this resolution, the Council of the Society had several meetings, and eventually it was decided by the Council of the College, at the suggestion of the Society's Council, that the administrative body of the Society should be annually elected by ballot, and that all members of the Society being Fellows of the College of Physicians or of the College of Surgeons should be entitled to vote.

The first election took place last Monday at 4 p.m., when the following gentlemen were elected:—Messrs. Colles, Wharton, Minchin, Richardson, Macnamara, Porter, Corley, Stokes, Mapother, Morgan, Hamilton, Tufnell, Butcher, Stapleton, Croly, Bevan, Walsh, Hughes, Bennett, Irvine, and Charles Benson.

## Obituary.

### THE LATE DR. LANKESTER.

It is with deep regret that the profession will hear of the decease of the great medical coroner, Dr. Elwin Lankester, M.D., LL.D., F.R.S., who since 1862 has discharged the high public duties to which he was elected in a manner calculated to make the Coroner's Court more respected than prior to his work.

He was born April 23, 1814, and therefore has expired in the sixty-first year of his age. Well do we remember the event of his election, and well has he repaid his profession for the effort then made to secure it. Alas! that his genial smile no more shall greet us, and his able head direct the inquiries he so well knew how to preside over. If we say but little on this point to-day, we must add a catalogue of his works, to show that it was not as judge in his own court that he chiefly distinguished himself. His whole career was honourable. Having been educated at Woodbridge, he was apprenticed to a surgeon there; from 1834 to 1837 he studied at University College, and in 1838 he became a Member of the College of Surgeons and Licentiate of the Apothecaries' Society. In 1839, according to a contemporary record, he visited the Continent, and graduated at Heidelberg; in 1843 became lecturer on Materia and Botany at the St. George's School of Medicine; in 1844 Secretary to the Ray Society; and in 1845 was elected Fellow of the Royal Society. In 1850 he was appointed Professor of Natural History, New College, London; in 1851 received the degree of LL.D. from Amherst, U.S.; in 1853 became Lecturer on Anatomy and Physiology at Grosvenor Place School of Medicine; in 1858 Superintendent of the Food Collections at the South Kensington Museum; in 1859 President of the Microscopical Society; in 1862 Examiner in Botany to the Science and Art Department at South Kensington; and was elected Coroner for Central Middlesex in 1862. Dr. Lankester contributed to the *Naturalist*, "Annals of Natural History," to the *Pharmaceutical Journal*, the "Penny Cyclopædia," and "Reports of the British Association for the Advancement of Science." He wrote the "Natural History of Plants yielding Food," and "Memorials of John Ray," published in 1845; edited the "Correspondence of John Ray," in 1846; contributed the article "Rotifera" to the "Cyclopædia of Anatomy and Physiology," and a "Report on the Progress of Organic Chemistry" to the "Companion to the British Almanack" in 1847; and published a translation of Schleiden's "Principles of Scientific Botany" in 1849. Dr. Lankester, who contributed reviews of medical works and papers on Natural History to the *Athenæum*, became joint editor of the *Quarterly Journal of Microscopical Science* in 1853; has written "Botany" in Hughes's "Reading Lessons," and, by command of her Majesty, edited the "Natural History of Dee-side." He translated Kuchenmeister's

"Animal Parasites" in 1859; contributed, in conjunction with Dr. Letheby, the article on Sanitary Science to the "Encyclopædia Britannica" in 1859; published "Half-hours with the Microscope;" "Two Addresses to the Microscopical Society of London;" "A Guide to the Food Collection at South Kensington Museum;" "A Course of Lectures on Food," and "A Course of Lectures on the Uses of Animals;" and delivered lectures on natural history and its various branches at the Royal Institution; several courses on physiology and botany at the London Institution; and several courses on botany before the Royal Botanical Society of London. As Coroner for Middlesex he published seven "Annual Reports" in the "Proceedings of the Social Science Association;" and as Medical Officer of Health for St. James's, Westminster, published fourteen "Annual Reports." In 1866 he edited the *Journal of Social Science*, and published a small work entitled "Cholera, what it is and how to prevent it." In 1867 appeared "Good Food, what it is and how to get it;" in 1868, "Vegetable Physiology;" in 1869, a "School Manual of Health;" and in 1870, "What shall we Teach, or Physiology in Schools;" besides several articles in *Nature* on scientific subjects.

## Medical News.

**Royal College of Physicians of London.**—On Oct. 29th the following gentlemen were elected Fellows of this College:—Robinson, Frederick, M.D. St. And., 47 Claverton Terrace, S.W. Carter, Thomas Albert, M.D. Edin., Leamington. Robertson, William Tindal, M.D. Edin., Nottingham. Green, Thomas Henry, M.D. Lond., 74 Wimpole St. W.

The following were admitted Members on the same date:—Sawyer, James, M.D. London, Birmingham. Godson, Clement, M.D. Aberdeen 8 Upper Brook Street, W. Newman, Alfred Kingcome, M.B. Aberdeen, Guy's Hospital, S.E. Greenfield, William Smith, M.B. London 93 Wimpole St., W. Ewart, William, L.R.C.P., 20, Leicester Square, W. Mahomed, Frederick Henry Horatio Akbar, London Fever Hospital, N. Johnston, James, M.B. London, Birmingham.

**The Anstie Memorial Fund.**—The committee formed to promote a memorial to the late Dr. Anstie have issued the following circular: "The death of the late Dr. Anstie, which took place on the 12th of September, in the forty-first year of his age, was occasioned by blood-poisoning, received, probably, through an accidental wound in the course of a post-mortem examination, while he was engaged in investigating the nature and causes of an obscure disease which had destroyed the lives of some of the children in the Royal Victoria Patriotic Asylum, at Wandsworth. A few days later, on the 23rd of September, a meeting of some of his professional and private friends was held at the house of Dr. George Johnson, F.R.S., 11 Savile Row; and at this meeting it was resolved:—'That, considering the labours of the late Dr. Anstie for the promotion of science, and the circumstances of his untimely death, it is desirable that some permanent memorial of his career should be established.' In order to give effect to this resolution the nucleus of a committee was at once formed by the gentlemen present. . . . In accordance with a wish very generally expressed, the executive committee have decided to recommend that a small portion of the sum subscribed (about £20) shall be expended in the erection of a tablet or other memorial in some suitable place, and that the residue shall be deposited with trustees, to be by them applied to the education of the children, or to their advancement in life, in such a manner as circumstances may render expedient, and in accordance, as nearly as possible, with the wishes which their lamented father would have entertained for them. A proposition to this effect has been submitted to Mrs. Anstie, and has received her approval and acceptance. . . . Subscriptions may be paid to the credit of the Anstie Memorial Fund, at the bank of Sir S. Scott and Co., Cavendish Square; to the treasurer, J. S. Storr, Esq., 26 King Street, Covent Garden, W.C.; or to either of

the undersigned, to whom also any inquiries relating to the matter may be addressed.—R. Brudenell Carter, 69 Wimpole Street, W.; Wharton Hood, M.D., 65 Upper Berkeley Street, Portman Square, W., hon. secretaries.

## NOTICES TO CORRESPONDENTS.

**H. G. W.**—The licence does not entitle the holder to style himself "Dr." It authorises him to practise medicine.

**BOLDO.**—Several correspondents wish to know what houses keep the tincture. Perhaps any house that may receive a supply soon will advise us.

**MR. J. B., HOLLOWAY, Peckham,** is thanked for his offer; but inasmuch as we have the official statistics ourselves—if we had only room to publish them—without copying from the *Sanitary Record*, we must decline the luxury of paying him five guineas for what we don't want.

**SCARCE NUMBERS.**—The Publisher will be glad to purchase clean copies of January 14th and June 3rd, *MEDICAL PRESS AND CIRCULAR* of this year, or to supply any others in lieu thereof, on application to the London office, King William Street, Strand.

**P. D.**—The 7th Edition of MacNamara's "Medicines" is the latest, and it is the best extant work on the subject. Roscoe and Cleland are also first-rate handbooks, and none better can be studied by a candidate.

**THE JACKSONIAN PRIZE ESSAY.**—The subject for the 1875 competitions to be awarded by the Council of the Royal College of Surgeons of England is, "The Use of the Galvano-Cautic in the Removal of Morbid Growths."

**CORONER.**—There are already four candidates in the field for the coronership vacant by the death of Dr. Lankester—viz., Dr. Hardwicke, deputy coroner; Mr. C. E. Lewis, M.P. for Londonderry; Mr. J. Mortimer Granville, M.R.C.S., for some years editor of the *Globe* newspaper; and Mr. James Boulton, a solicitor of Clerkenwell.

**THE PULSE.**—We are always glad to welcome any work which has for its object the enlightenment of the masses in those essentials about which so much ignorance prevails; and as beacons in the literature for the millions which must have a counteracting influence on the trash which weekly teems from the press, we know of no better or of healthier tone than such works as the *Leisure Hour* and *Cassell's Popular Educator*. Here is the common-sense way in which the functions of the pulse are taught in the latter journal for November: "The jerking motion of the blood, which it is the purpose of the elastic properties of the arteries to control, but which is not entirely subdued until the blood reaches the capillaries, causes that pulsation which is felt at the wrist, or at any other spot where the artery is sufficiently superficial, and which is commonly known as the pulse. The pulse is, of course, a measure of the frequency of the heart's action, as its beats correspond with the contraction of the ventricles; the pulse varies according to age, and is affected by many circumstances—the average in an adult is from 70 to 75 per minute; in an infant at birth, 140; whilst in old age it gradually declines from the adult standard; in persons of an excitable or sanguine temperament it is quicker than in the phlegmatic, and it is also more rapid in women than in men. After a meal the pulse is quicker than while fasting, and any exertion not carried sufficiently far to produce exhaustion increases its rapidity in proportion to the severity of the exercise taken. In the morning it is more rapid than at night, when the body is fatigued. Position also influences it; it is slowest in the recumbent posture; sitting or standing increases it, the latter more so, as requiring more muscular action."

**ITINERANT DOCTORING.**—Do you approve of the conduct of a medical man, enjoying a free railway-pass (through having charge of the company's officials for a certain district), availing himself of that privilege to visit other districts along the line upon office therein on all market days, and by underselling the local practitioners, endeavour to secure some business? To me such conduct seems unprofessional, and closely analogous to that of those migratory traders who, with cart and table, occasionally visit our markets, vending their nostrums to the poor dupes of ignorant credulity.—C. E. E.

[We decidedly disapprove of migratory doctoring, which is none the better because the free railway-pass granted for the care of the company's servants is made use of for the furtherance of private practice. As suggested by our correspondent, it is unquestionably unprofessional and undignified.—Ed. M. P. & C.]

**DR. M'C., Mitchelstown.**—Too late for this week.

**COMMUNICATIONS,** with Enclosures, &c., have been received from R. Letheby, London. Dr. Tilt, London. Dr. Hughlings Jackson, London. Dr. Alexander Burnes, London. Dr. E. Williams, Colchester. Dr. Pedro de Velasco, Madrid. Dr. McCall Anderson, Glasgow. Dr. Bathurst Woodman, Finsbury. The Hon. Secs. to the

Anstie Memorial Fund. Dr. Kiernan, Buckfastleigh. Dr. Lombard, Leamington. Dr. Boyd Mushet, Birkenhead. Dr. Kirby, London. Dr. Black, Glasgow. Dr. Dudgeon, London. Mr. Whatford, Brighton. Dr. Ormeby, Dublin. Dr. Routh, London. Dr. Drysdale, London. Dr. Williams, London. Dr. McGriger Croft, St. John's Wood. Mr. Squire, London. Mr. King, London. Mr. Haviland, Northampton. Dr. Hyslop, Church Streeton. Dr. Long Fox, Bristol. Dr. Beach, Cheltenham. Dr. Handzel Griffiths, Dublin. Dr. Bartle, Liverpool. Mr. Lunn, Edgbaston. Our Indian Correspondent. Mr. J. Robertson, Royal College of Surgeons of Edinburgh. Mr. Deprimé, Highbury. Mr. Wilde, Huddersfield. Mr. Fox, Manchester. Mr. Savory, London. Dr. Morgan, Dublin. Mr. Stansfeld, Bristol. Mr. Ingram, London. Dr. Langley, London. Mr. Holloway, Peckham. Mr. McClean, Norwood. Dr. Hayden, Dublin. Mr. Ward, Horn-castle. The Secretary to the Lord-Lieutenant, Dublin Castle. Mr. T. Moron, London. Mr. Nightengate, Folkestone. Mr. Jabez Hogg, London. The Registrar, Royal College of Physicians of London. Dr. Macnaughton Jones, Cork. Dr. Sidney Chater, Boulogne-sur-Mer.

## VACANCIES.

District Lunatic Asylums, Ireland. Resident Superintendent of the Castlebar Lunatic Asylum. Applicants must forward their testimonials, &c., to the Under-Secretary, Dublin Castle. (See Advt.)

Parish of Lambeth. Medical Officer for the Infirmary. Salary, £300 per annum, with extras. Applications, with testimonials, must be sent to the Clerk of the Union, at the Board-room Offices.

Queen's Hospital, Birmingham. Resident Secretary and General Superintendent. Salary, £150, with board and lodging. Address the Chairman of the House of Committee.

Jersey General Dispensary. Resident Visiting and Dispensing Medical Officer. Salary, £120 per annum. Apply to the Rev. P. Le Feuvre, Jersey.

Central London Ophthalmic Hospital. Assistant Surgeon. Honorary. North Wales Lunatic Asylum. Medical Superintendent. Salary commencing at £350, with house. Full particulars of Mr. J. Robinson, Denbigh.

Hastings Infirmary. Assistant Surgeon. Particulars of the Secretary. York County Hospital. House Surgeon. Salary, £100 per annum, with board and lodging. Address the Secretary.

Towcester Union. Medical Officer. Salary, £60 per annum, exclusive of fees. Applications to the Clerk of the Guardians.

## APPOINTMENTS.

ADRIEN, J. W., L.K.Q.C.P.I., Superintendent Medical Officer of Health for the Drogheda Rural Sanitary District.

ANDERSON, M.C., M.D., Physician to the Western Infirmary, Glasgow. ANDERSON, T. M.D., Surgeon to the York Eye and Ear Institution.

BENNETT, C. J., M.R.C.S.E., a Medical Officer of Health for the Truro Rural Sanitary District.

CARLETON, W., M.B., Superintendent Medical Officer of Health for the Delvin Rural Sanitary District.

COATES, S., M.B., Superintendent Medical Officer of Health for the Portumna Rural Sanitary District.

CROWT, J. D., M.D., Superintendent Medical Officer of Health for the Queenstown Urban Sanitary District.

DE RENZY, T., L.K.Q.C.P.I., L.R.C.S.I., Medical Officer, &c., for the Arthursdown Sub-district of the New Ross Union, co. Wexford.

DONALDSON, Dr., Sanitary Officer for the Castleshaw District of the Monaghan Rural Sanitary District.

FRAZER, H., L.K.Q.C.P.I., Superintendent Medical Officer of Health for the Armagh Rural Sanitary District.

GAIDNER, W. T., M.D., Physician to the Western Infirmary, Glasgow. IRWIN, Dr., Sanitary Officer for the Scotstown District of the Monaghan Rural Sanitary District.

KELLY, J. D., L.R.C.P.Ed., Superintendent Medical Officer of Health for the Ballinrobe Rural Sanitary District.

MAHON, C. J., L.K.Q.C.P.I., Superintendent Medical Officer of Health for the Dromore West Rural Sanitary District.

MOORE, M., L.K.Q.C.P.I., Superintendent Medical Officer of Health for the Cavan Rural Sanitary District.

NELSON, E. F., M.D., Superintendent Medical Officer of Health for the Downpatrick Rural Sanitary District.

POWELL, E., M.D., Superintendent Medical Officer of Health for the Sligo Rural Sanitary District.

REED, Dr., Sanitary Officer for the Kilmore District of the Monaghan Rural Sanitary District.

ROGEE, J. M.D., Superintendent Medical Officer of Health for the Fermoy Urban Sanitary District.

ROSE, W., F.R.C.S., Surgeon to the Westminster General Dispensary. SEYMOUR, F., M.R.C.S.E., L.S.A., Assistant Medical Officer to the Norfolk County Asylum near Norwich.

ARMY MEDICAL DEPARTMENT.—Surgeon-Major J. Leitch, M.D., and Surgeon D. H. E. Anderson, M.D., retire on temporary half-pay; Surgeon-Major W. Ferguson, from half-pay, to be Surgeon-Major, vice F. A. McDermott, retired on temporary half-pay; Surgeon A. E. Bartlett to be Surgeon-Major, vice G. A. Hutton, retired on temporary half-pay.

## Marriage.

TRAUF—TOBIN.—On the 23rd ult., at St. George's, Hanover Square, Robt. W. Trauf, M.B., Surgeon 42nd Highlanders (The Black Watch), to Marjaret Anne, only daughter of the late Lieut.-Col. Tobin, 11th Regt.

## Deaths.

SMITH.—On the 23rd October, at Poplar House, Barnsley, George Smith, M.D., aged 74.

SHELL.—On the 26th October, at his residence, 50 Stepney Green, London, Edmund Shell, L.R.C.P.Ed., M.R.C.S.Lond., aged 53.

WOOD.—On the 23rd October, at Cookham-Dean, Maidenhead, Abraham Wood, F.R.C.S.E. (Hon.), formerly of Rochdale, in his 79th year.

**MEDICAL GENTLEMEN REQUIRED AS PROVINCIAL DIRECTORS** for a high-class undertaking. Remuneration, £500 each the first year. No liability.—Address BANKERS, care of Messrs. Imray and Daulton, 47 St. Mary Axe, London, E.C.

**DISTRICT LUNATIC ASYLUMS, IRELAND.**—The Office of RESIDENT MEDICAL SUPERINTENDENT of the District Lunatic Asylum at Castlebar being now vacant by the transfer of the Resident Medical Superintendent of that Institution to the Ennisworthy District Lunatic Asylum, candidates for that office are requested to forward their testimonials, with a statement of their peculiar qualifications for the appointment, to the Under-Secretary, Dublin Castle, on or before the 21st NOVEMBER next, in order that the same may be submitted to His Grace the Lord Lieutenant.

Applicants must be duly qualified to practise both in Medicine and Surgery, and registered as such under the Medical Act of 1859.

Candidates over 40 years of age are ineligible.

The Candidate who may be selected for the Office in question will have to enter upon his duties forthwith.

Dublin Castle, 31st October, 1874.

**DUBLIN INFIRMARY for DISEASES of the EYE and EAR, Ely Place.**

Ophthalmic and Aural Surgeon: ARCHIBALD HAMILTON JACOB, M.D. Dub., F.R.C.S., Ex-Ophthalmic and Aural Surgeon to the City of Dublin Hospital.

Consulting Physician: EVORY KENNEDY, M.D. (Hon. Caus.) T.C.D. and Edin., Fellow and Ex-President King and Queen's College of Physicians.

Consulting Surgeon: GEORGE H. PORTER, F.R.C.S.I.; M.Ch. T.C.D. (Hon. Caus.), Surgeon in Ordinary to Her Majesty the Queen in Ireland; Fellow and Ex-President, R.C.S.I.; Senior Surgeon to the Meath Hospital.

Obstetric Physician: JOHN CRONIN, M.D., F.R.C.S., Examiner in Midwifery, Roy. Col. Surgeons; Ex-Assistant Physician Rotunda Hospital.

Work, Income, and Expenditure for Twelve Months, ending June 30, 1873.

Annual number of Dispensary patients	...	...	...	5,847
Number of visits paid by such patients	...	...	...	124
Number of patients within the Infirmary	...	...	...	163
Number of operations performed	...	...	...	£37 15 0
Total gross expenditure per bed per annum	...	...	...	1 10 6
Average expenditure per intern patient	...	...	...	

The Infirmary is wholly dependent on private benefactions, and is in debt to the Medical Officer. SUBSCRIPTIONS ARE EARNESTLY REQUESTED

**CITY OF DUBLIN HOSPITAL, UPPER BAGGOT STREET.**

Physicians: HAWTREY BENSON, M.B. Univ. Dub., F.K. & Q.C.P.I., L.R.C.S.I. J. MAGEE FINNY, M.B. Dub., F.K.Q.C.P.I., Demonstrator Trinity College.

Surgeons: JOLLIFFE T. TUFNELL, F.R.C.S.I., Ex-Régius Professor of Military Surgery, and President Royal College of Surgeons. HENRY GRAY CROLY, F.R.C.S.I., L.K. & Q.C.P.I., Senior Demonstrator of Anatomy, Royal College of Surgeons. WILLIAM I. WHEELER, F.R.C.S.I., M.D. Univ. Dub., L.K. & Q.C.P.I., Demonstrator of Anatomy, Royal College of Surgeons. ARTHUR BARKER, L.R.C.S.I., Demonstrator Royal College of Surgeons.

Ophthalmic and Aural Surgeon: LOFTIE STONEY, M.D., F.R.C.S., Demonstrator of Anatomy. Consulting Physicians: Professor APJOHN, T.C.D., and CHARLES BENSON, M.D., Ex-Professor of Practice of Medicine, Royal College of Surgeons.

Consulting Surgeon: WILLIAM HARGRAVE, M.D., F.R.C.S.I., Ex-Professor of Surgery, Royal College of Surgeons.

Consulting Ophthalmic Surgeon: ARTHUR JACOB, M.D., Hon. T.C.D., F.R.C.S.I., Ex-Professor of Anatomy and Physiology, Royal College of Surgeons.

The WINTER SESSION commences in OCTOBER. The SUMMER SESSION commences in MAY.

Special Wards, under the care of Dr. LOFTIE STONEY, are appropriated for the reception of Ophthalmic and Aural cases, and a distinct course of Lectures on Diseases of the Eye and Ear (including Operations) is delivered, for which a Certificate is given.

There is a ward exclusively for Children, affording ample opportunities of studying the Diseases of early life.

Connected with the Hospital is an extensive daily Dispensary, at which the Pupils are allowed to perform the minor operations, and are rendered familiar with the details of Dispensary Management and the Art of Prescribing.

The "Purser Studentship," of £20 per annum (with apartment-), founded by William A. Purser, Esq., L.R.C.S.I., a former Pupil of the Hospital, is open to all Students through the medium of Competitive Examination, for which a special Certificate is given, if merited, and numerous Medals and Prizes are awarded in Medicine, Surgery, and Ophthalmology.

The Drummond wing, for Fever and other Contagious Diseases, affords full opportunity for studying these branches of Medicine. Instruction in Practical Pharmacy is given in the Compounding Department. Fee for Total Hospital Attendance, Twenty Guineas; Nine Months, Eight Guineas; Six Months, Six Guineas; Summer Three Months, Three Guineas.

For further particulars apply to Dr. WHEELER, Hon. Sec., 56 Pembroke Road, between Three and Four o'clock, or at the Hospital between Ten and Eleven o'clock a.m.

**THE STEWART INSTITUTION FOR IMBECILES,  
AND LUNATIC ASYLUM, LUCAN.**

PATRON:—H.R.H. THE PRINCE OF WALES.

This Institution was founded in 1869, and has already attained a large measure of success. It is situated in a healthy locality, and is under the superintendence of a Resident Physician, with trained teachers, who endeavour by the most improved methods to develop the powers, mental and physical, of Imbeciles.

To the pupils who can receive such instruction useful trades are taught. In that of mat making, particularly, excellent progress has been made, and an inspection of the work is invited either at the Institution or at the office.

The Institution is the only one of its kind in Ireland, and is mainly supported by voluntary contributions.

Pupils are admitted free by election, or by payment of £35 per annum. A higher rate is payable for separate accommodation.

Contributions to the fund for the erection of the proposed extensive buildings at Palmerston are earnestly solicited.

Each donation of Five Guineas gives the donor a life vote. Annual Subscribers are entitled to one vote for each half guinea paid.

An Asylum for Lunatic Patients of the middle classes, under a well-organised administration, also forms part of the establishment.

Full particulars as to the working of both Institutions, terms, &c. can be had at the office.

40 MOLESWORTH STREET, DUBLIN.  
W. O'NEILL, Secretary.

**MALVERN COLLEGE.**

This COLLEGE contains TWO DEPARTMENTS—the CLASSICAL and the MODERN. There is also a Preparatory LOWER SCHOOL. There are Boarding Houses within the College Grounds, held by the Head Master and others of his Staff; a Gymnasium, &c.

Board and Tuition under 14, £80; over 14, £90. Non-shareholders pay an extra fee of £6. Special advantages for Sons of Clergymen and Home Boarders.

For further information apply to the Rev. ARTHUR FABER, M.A., Head Master, late Fellow and Tutor of New College, Oxford.

The Examination for Scholarships and Exhibitions on December 22nd and 23rd.

**MEDAL**

1873,

VIENNA.

**MEDAL**

1872,

MOSCOW.

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"SALUS POPULI SUPREMA LEX."

WEDNESDAY, NOVEMBER 11, 1874.

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## Original Communications.

### ON THE SCIENTIFIC AND EMPIRICAL INVESTIGATION OF EPILEPSIES.

By J. HUGHLINGS JACKSON, M.D., F.R.C.P.,  
Physician to the Hospital for the Epileptic and Paralysed, and to the London Hospital.

#### CHAPTER II. (*continued*). DEFINITION.

PERHAPS the reader will miss one important set of symptoms from the list of Epilepsies given.

Epileptic Mania is usually, or often, spoken of as if it were owing to an *epileptic* discharge. An attack of mania is said to "replace" an attack of epilepsy. In agreement with this opinion I used to speak of short paroxysms of mania occurring in a person who at other times had convulsions as "epilepsies." I used to suppose that they directly resulted from such discharges as those which produce other paroxysms—convulsive paroxysms, for example—which I call epilepsies. I have for some years thought otherwise. There are discharges in epileptic mania, and they are abnormal, and they are of the organ of mind, but they are not epileptic (that is, not sudden, abrupt, and excessive) discharges.

I have several reasons for change of opinion. There is in most cases of epileptic mania clear evidence that the mania occurs when the epileptic discharge is over—that is to say, that the maniacal action is post-epileptic rather than epileptic. There are, however, cases in which there is no sign of an epileptic discharge (*i.e.*, no outward sign) before the maniacal action begins, as in cases of so-called masked epilepsy. I do not, however, adopt the accepted explanation of these cases—that they "replace" an epileptic fit. I think the evidence is in favour of another hypothesis—*viz.*, of a slight and unobserved fit. Let us consider, first, the cases of epileptic mania—I mean cases in which a prior fit is observed.

Epileptic mania occurs in those epilepsies where loss of consciousness is either the first, or nearly the

first, thing in the paroxysm; when there is "a warning," it is of a very general character. This is equivalent to saying that it occurs in those cases where the discharge begins in the very highest nervous processes. But it is found when the epileptic discharge is over, and the paroxysm has ceased. To explain the condition after the paroxysm, let us take a simpler case. Let us take a case where the discharge begins in a lower series of nervous processes—for example, in the corpus striatum, or rather in its adjacent convolutions. There is convulsion of the face, arm, and leg of the opposite side of the body, and possibly, if the discharge be excessive, universal convulsion. But after the discharge is over, there is, if the discharge has been unusually excessive, hemiplegia. This is, I consider, a sign to us that the corpus striatum has been put *hors de combat* by the violent discharge. We venture from these cases on the generalisation that "*Strong Epileptic Discharges Paralyse the Nervous Centre (or much of it) in which they Begin or through which they Spread.*"

Now we return to the cases where the discharge begins in the highest series, and apply the generalisation to them. There is loss of use of that series after a discharge beginning in it, when that discharge has been excessive. But obviously violent action (maniacal raving) could not result from this loss of use (a *paralytic* condition) of the highest centres. That accounts only for loss of consciousness (the highest centres which are now paralysed being the anatomical substrata of consciousness). That is only the patient's negative condition, and his condition is duplex. There is the positive element—the mania—to be accounted for. My opinion is that the mania is the result of over-action (morbidly increased discharge, but not epileptic discharge) of the processes just below those which have been put *hors de combat*. The patient is reduced to a more automatic condition of mind, or, as we have otherwise put it (Chapter I., Pt. 2, p. 350), his "adjustment is lowered." But why increased action of the lower processes? To lose consciousness is to lose control over the lower processes. This is a metaphorical expression. The physiological equivalent is to be given.

There is, after section of the spinal cord, increased reflex

excitability of the segments below the injury. Now, of this Bernard says (*"Leçons de Pathologie Expérimentale,"* 1872, p. 205)—I draw especial attention to the words italicised—"Nous trouvons, dans ce phénomène, un fait pathologique qui mérite d'être sérieusement étudié, *d'autant plus qu'il est applicable au système nerveux dans toute son étendue.* Tout nerf séparé du centre dont il émane acquiert des propriétés spéciales, qui ne diffèrent cependant de celles dont il jouit à l'état normal que par un excès d'intensité."

The principle that we get over-action of lower centres from the mere removal of the higher centres has very important applications. It was distinctly formulated by the late Dr. Anstie some years ago. Thus, speaking of the effects of opium, he wrote: "The apparent exaltation of certain faculties should be ascribed rather to the removal of controlling influences than to the positive stimulation of the faculties themselves, or of the physical machinery by which they work" (*"Stimulants and Narcotics,"* p. 80).

Let us state another reason why the symptoms of mania cannot be produced by an epileptic discharge (I mean, of course, produced directly by that discharge; they are, I think, as just stated, produced by it in a very indirect way). If the reader bears in mind what was said of the differences betwixt healthy and epileptic discharges, he will see that an epileptic discharge (i.e., a sudden and violent discharge) could not produce even that caricature of healthy action which is displayed in the doings of the epileptic maniac. This will be very plain if we take cases of elaborate mental automatism after very slight epileptic discharges. Thus, a man subject to epileptic attacks is found unconscious in the kitchen, mixing cocoa in a dirty gallipot (intended for the cat's food) with a mustard spoon. This was a very elaborate action, and that it was only a caricature of a normal action is plain, because it had just before been agreed on that his sister-in-law, who was on a visit, should have cocoa for her supper. It is impossible to believe that the cerebral discharges which produced such actions as the cocoa-mixing were like those discharges which produced convulsion. This patient was known to be the subject of slight attacks (*petit mal*) and severe attacks (*grand mal*). I believe that before the cocoa-mixing affair he had a slight attack of *petit mal*—i.e., a slight discharge beginning in his very highest processes, which had left some of them *hors de combat*. Then, so to speak, "under this loss" (which, symptomatically, was loss of consciousness) automatic action went on. That action was, in this case, only a slight caricature of normal action. But after stronger discharges, there is a deeper involvement of nervous processes (a deeper Dissolution), and correspondingly a lower kind of automatic action—e.g., maniacal raving, &c. After very strong discharges there is coma, a condition lower than mania, for by the discharges which produce coma all processes serving in mind seem to be put *hors de combat*, and there is only left the lowest "physical" automatic action (respiratory, circulatory, &c.). But neither the mental automatism of mania nor the physical automatism in coma can reasonably be attributed to the direct effects of an epileptic discharge.

What I have just been saying is in principle simply the obverse of what was said when speaking (page 391) of discharges of an hypothetical centre for visual ideas. It was pointed out that an epileptic discharge of those parts of the brain which are slightly discharged when we think of objects (or from somewhat increased discharge of which spectral images result) would not rouse ideas, but would cause simply clouds of colour and spasm of ocular muscles. The same principles apply to epileptic mania. An epileptic discharge could not produce actions so elaborate as maniacal action.

To recapitulate. In Epilepsy there is, as in healthy operations, both so-called mental and physical, a nervous discharge. But the epileptic discharge is a very local discharge; it is a discharge of some highly unstable part of the cerebral ( $\alpha$ ) hemisphere; it is an abrupt and ex-

cessive discharge. This definition embodies the principle of the new method. It amounts to saying that the phenomena of epileptic paroxysms are considered as developments, although in a brutal way, of the functions of limited parts of the brain. Returning to an arbitrary example. Strong lateral deviation of the eyes and clouds of colour are supposed to be developments in a brutal way of the motor and sensory elements in the anatomical substrata of visual ideas. It is for this reason that I call the method Anatomical and Physiological. As I shall show at length later on, I have for some years considered different varieties of convulsions as results of experiments in anatomy and physiology revealing to us, although in the rough the movements and impressions represented in different parts of the cerebral hemisphere; or, as I would otherwise put it, the localisation of the anatomical substrata of different classes of ideas, visual, tactual, &c. (See page 391.)

Obviously the method differs both as a means of Investigation and as a basis for Classification from the accepted method. Premising that chronic cases are spoken of, the accepted method starts by establishing some clinical entity (grouping of symptoms)—Epilepsy. And the question in a case is often only—"Does it satisfy the definition?" and not also—"How do the symptoms show a departure from health of some part of the nervous system?" The accepted definition of epilepsy is definition by type. The essential element in the accepted definition is loss of, or trouble of Consciousness, and this, for example, holds together the several varieties of epilepsy, vertigo, *petit mal*, and *grand mal*. It is sometimes said if there is no loss or defect of consciousness there is no epilepsy.

This absolute distinction into cases with, and cases without loss or trouble of consciousness, seems to me to be from a scientific point of view arbitrary. (a) It is an absolute distinction, not of anatomical or physiological, but of psychological parentage. Although it involves great recapitulation, I must consider the matter again in this place.

Loss of consciousness is not a symptom utterly different from other symptoms. It is not to be dismissed from analysis as a mysterious epiphenomenon or complication. Consciousness is mysterious, but *loss* of consciousness in cases of disease is to be considered on the same method as other nervous symptoms. Nor will it do merely to speak of consciousness as a "a function" of the cerebral hemisphere. Of course, in a sense it is so; but the expression is a vague one. For it is not a function in the same way as secretion of bile is a function of the liver. Physiologically the function of the cerebral hemisphere is, like that of the lower centres, to co-ordinate impressions and movements, or rather to re-co-ordinate those impressions co-ordinated by lower centres. Consciousness has, of course, anatomical substrata, as much as speech or any other mental operation has. These substrata are sensori-motor processes. How that other so-called function consciousness arises during energising of these substrata is not our direct concern. Similarly we must not simply speak of *loss* of consciousness as being due to "loss of function of the cerebral hemisphere." It is true enough in a sense, but in that sense it is almost a barren truism. We have to consider in an inquiry like this the nature of the anatomical substrata which are implicated when consciousness ceases.

The sensori-motor processes concerned in consciousness are only in great degree different from those of lower centres. They are the most special of all special nervous processes—the series evolved out of all other (lower) series. *To lose consciousness is to lose the use of the most*

convulsion with which there is loss of consciousness at or about the onset (cases of "idiopathic epilepsy" according to the accepted definition) depends on discharge of parts in *one* cerebral hemisphere. The reasons for this will be given later.

(a) In the next chapter I shall point out that Clinical Entities are necessary for practical purposes

(a) I wish particularly to mention now that I think *universal*

*special of all nervous processes whatsoever.* Now, one of the many ways in which the use of them may be lost is by their being the seat of an epileptic discharge. It will be temporarily lost *during their discharge* (during their excessive excitation) as much as it is permanently lost when they are implicated by gross lesion. It is just as the use of an arm is lost during the severe spasm of its muscles as much as by palsy of its muscles.<sup>(a)</sup> So then, whether consciousness be lost or not in an epilepsy, as I define it, or whether it be lost first of all or later in the paroxysm, depends on the seat of the discharging lesion, and on how far the discharge spreads. If those parts of the brain, where the most special of all nervous processes lie, be *first* affected by the epileptic discharge, there is loss of consciousness first of all. If the discharge be slight there may be, as appears, loss of consciousness only. This is so in very slight cases of *petit mal*. If strong, the discharge spreads from these very highest centres to lower centres, out of which these highest centres are evolved, and with which they are, therefore, continuous. The discharge widens as it spreads lower, and rapidly reaches the lowest centres and their muscles. There is loss of consciousness followed by convulsion. The accepted view makes the convulsion and the loss of consciousness to be two utterly different things depending on implication of two widely separate parts (medulla oblongata and cerebral hemisphere). This view, I believe, is partly owing to a psychological bias which, asserting that the brain is the organ of consciousness, finds it inconsistent with that assertion to speak of it also as an organ representing impressions and movements. On the view I take, discharges beginning in and spreading from the very highest centres (since they re-represent all that lower centres represent) will produce loss of consciousness, convulsion, and such symptoms as pallor of the face, passing urine in the fit, &c.

The view I have put forward will necessarily seem strange to those who are thinking of "Consciousness and Convulsion." They will see no possible relation betwixt the two things. Consciousness and Convulsion are utterly different things. But then I am thinking only of loss of use of the *anatomical substrata* of consciousness. It is the excessive discharge of these (during which consciousness ceases) which is comparable with that discharge of lower centres which produces convulsion. The things to be compared are discharges of sensorimotor processes of different series. So far from comparing consciousness with convulsion, I should not compare it with anything whatever, except perhaps metaphorically. It is the metaphysico-materialistic method, erroneously called "practical," which leads to such comparisons and explanations.

So far for epilepsies in which discharges begin in the highest centres. If the epileptic discharge begins in a subordinate series of nervous processes—in a lower centre—loss of consciousness does not occur, or occurs later. It only occurs when the discharge spreads far. Let us take an example. In some cases of discharge of convulsions near to the corpus striatum, the convulsion begins in the hand, and if the discharge be severe it spreads gradually over the whole body. The inference is: that there is internally a corresponding spreading of the discharge in the brain. In such cases consciousness is in most (b) cases not lost until, or just before, the leg on the side of the body first affected is reached by the spasm—that is, not until the central discharge

has spread widely in the brain. Consciousness may be lost in such a case from one of two causes. It is lost either as soon as the most special of all processes are reached by the internal discharge which began in the subordinate series; Secondly, consciousness must be lost when a large quantity of a subordinate and yet important series of nervous processes is suddenly involved in the discharge.

The last remark is important. Let us state very generally what it involves. If a patient *suddenly* loses by any process the use of *any large part* of either of the two cerebral hemispheres he must lose consciousness. For since the highest processes are evolved out of, and are, as it were, *continuous with*, processes only in degree lower, and through these with still lower unto the lowest, they have no independent existence. Consciousness must be lost when any important although subordinate series is seriously involved.

Here it may be well to remark expressly that, although medical men speak *clinically* of loss of consciousness as if there were a well-defined entity called consciousness, there is probably not amongst educated persons any such belief. We must for Clinical purposes have arbitrary standards (definitions by type). It is thus the universal custom for medical men to speak of "confusion," "stupor," "loss of consciousness," and "coma," although every medical man sees cases in which there are all conceivable degrees from slightest confusion of thought to deepest coma. Let me mention some slight degrees. Some patients will tell that in their fits they are not unconscious, but that they do not know where they are; that they hear people talking, but do not know what they say. It is not at all uncommon for the patient to say that when in a fit he feels as if in a strange place—"in a strange country," one of my epileptic patients said.

It would be as absurd to judge of a medical man's opinions as to consciousness by the terms he uses for describing the states of his patients as it would be to judge of a botanist's opinion on biology by considering only the terms he used in speaking of plants in his kitchen garden. It must be admitted that the two-fold use, the empirical and scientific, of terms leads to apparent contradiction in some of our medical phrases. Thus it is said "the patient was confused but was quite conscious." To be confused is to have defect of consciousness. Again, loss of consciousness is sometimes spoken of as being synonymous with coma.

It is clear, from what I have already said under Evolution, Chap. I, Part 2, p. 349, that no abrupt limitation of consciousness is recognised in this book. Thus I have used the term "defect of consciousness" when speaking of Insanity. To use the words of Herbert Spencer, (a) "all gradations exist between wholly unconscious nervous actions and wholly conscious ones."

In an anatomico-physiological inquiry what we have to note is how the organism is adjusted to its environment. Thus we should say that the patient whose case was mentioned (p. 410) was only very slightly less specially adjusted to his environment than was normal to him. He went through "the form" of the cocoa-mixing, used implements of the right class, but not those exactly fitted for the purpose. In the case of the headless frog which rubs vinegar off its back with a hind leg, there is a degree of adjustment very like normal adjustment. Whether con-

(a) We have also spoken of loss of consciousness as an after-effect of a strong discharge being due to exhaustion of a nervous tract consequent on excessive stimulation. This is so of the convulsed arm; its use is often lost after the discharge as well as by being involved in spasm during the discharge.

(b) Much depends on the rapidity of the discharge. I mean, for example, that consciousness is lost the sooner the more rapidly the spasm "runs up" the arm. If the spasm spreads slowly it may involve the whole of one side of the body without being attended by loss or even defect of consciousness.

(a) The following extract is of great interest in this connexion: "It does not follow, as it at first seems to do, that feelings are never located in the inferior nervous centres. On the contrary, it may well be that in *lower* types the *homologues of these inferior centres* are the seats of consciousness. The true implication is, that in *any case* the seat of consciousness is that nervous centre to which the *most heterogeneous impressions* are brought; and it is not improbable that, in the course of nerve evolution, centres that were once the highest are *supplanted* by others in which *co-ordination is carried a stage further*, and which thereupon become the places of feeling, while the centres before predominant become automatic." (Spencer, "Psychology," vol. i., ch. vi., p. 105. No italics in original).

consciousness is displayed or not in such adjustments is not a physiological, but a psychological question.

Mr. G. H. Lewes believes that Sensibility is a histologic property; this is, he believes, a fundamental property of the ganglionic tissue. We ought, according to him, to consider the sensorium as having the same extension as the nervous centres. This view is not necessarily discrepant with the statement I have made about the anatomical substrata of consciousness (that they represent the whole organism). Mr. Lewes has made a remark which is at least parallel to that statement. He defines the common sensorium ("Physiology of Common Life," vol. ii.) as "*the sum of all the lower centres, each centre being itself a small sensorium.*"

In the next chapter I shall show that, although from a scientific point of view the accepted distinction into cases of epilepsy without and cases with loss of consciousness is arbitrary, it does not follow that from a clinical point of view such arbitrary distinctions may be not only convenient, but essential. We must have arbitrary standards for practical purposes, as I have just been illustrating by terms used for degree of implication of consciousness.

#### APPENDIX NO. 1 TO CHAPTER II.

I here give a quotation from Mr. Herbert Spencer's "Psychology," to which I have referred in Chapter II. (page 390), and to which I shall have to make frequent reference in later chapters. The quotation is full of matter of interest to medical men:—

"Memory, Reason, and Feeling *simultaneously* arise as the *automatic* actions become complex, infrequent, and hesitating; and Will, arising *at the same time*, is necessitated by the same conditions. As the advance from the simple and indissolubly coherent psychical changes to the psychical changes that are involved and dissolubly coherent is itself the commencement of Memory, Reason, and Feeling; so, too, is it in itself the commencement of Will. On passing from *compound reflex actions* to those actions so highly compounded as to be imperfectly reflex—on passing from the organically determined psychical changes which take place with extreme *rapidity* to the psychical changes which, not being organically determined, take place with *some deliberation*, and therefore *consciously*, we pass to a kind of mental action, which is one of Memory, Reason, Feeling, or Will, according to the side of it we look at.

"Of this we may be certain, even in anticipation of any special synthesis. For since all modes of consciousness can be nothing else than incidents of the correspondence between the organism and its environment, they must be all different sides of, or different places of, the co-ordinated groups of changes whereby internal relations are adjusted to external relations. Between the reception of certain impressions and the performance of certain appropriate motions there is some inner connection. If the inner connection is organised, the action is of the reflex order, either simple or compound; and none of the phenomena of consciousness proper exist. If the inner connection is not (a) organised, then the psychical changes which come between the impressions and motions are conscious ones; *the entire must have all the essential elements of a conscious action—must simultaneously exhibit Memory, Reason, Feeling, and Will; for there can be no conscious adjustment of an inner to an outer relation without all these being involved.*"(b)

#### APPENDIX NO. 2.

I find that I have already given a quotation on the Motor and Sensory regions of the brain in this journal, January 28, 1874. The following quotation is from an Abstract of my second Goulstonian Lecture (*Brit. Med. Jour.*, March 6, 1869):—

"He does not think it, *a priori*, likely that the optic nerve, any more than the radial nerve, would be represented in any one part of either or of both the cerebral

hemispheres, but in every part of each of them; and, excepting to an inconsiderable extent, only indirectly. Taking illustrations from disease, the kind of 'sensation disorders' we should expect from disease of the cerebral hemisphere would be spectral illusions—a disorderly reproduction of *very complex impressions*, which differ from defects of sight as a mistake in a word does from a cramp in the tongue. On this higher level, however, there will doubtless be some kind of localisation, and its most general character may be inferred. Since—as Lockhart Clarke has pointed out—the structure of the anterior convolutions does differ from the posterior, they must serve differently in mind.

"*Facts seem to show that the fore part of the brain serves in the motor aspect of mind, and we may fairly speculate that the posterior serves in the sensory.*"

"This speculation seems to me to accord with one of Ferrier's conclusions from his masterly experiments. The following is a quotation from a summary of his most recent researches (*Med. Record*, March 18, 1874):—'The whole brain is considered as divided into a sensory and motor region, corresponding to their anatomical relation to the optic thalami and corpora striata and the motor and sensory tracts.'

## A Course of Lectures

ON THE

### NATURE AND TREATMENT OF DEFORMITIES OF THE HUMAN BODY,

DELIVERED IN THE MEATH HOSPITAL, DUBLIN, BY

LAMBERT H. ORMSBY,

Surgeon to the Hospital, and Demonstrator in the School of Surgery Royal College of Surgeons in Ireland.

#### LECTURE VIII. (Continued from page 354.)

### DEFORMITIES AND DISTORTIONS OF THE HEAD AND FACE.

DEFORMITIES affecting the head or cranium are by no means so common as might be expected, and when they do occur it is more or less dependent on the gradual evolution and development of the brain. Some portions, however, of the bones of the cranium may be deficient, and in some cases there is no appearance whatever of the cranium at all, as found in the true *acephalous feti*; the parietal, occipital, and other bones are found occasionally imperfect, as seen in that malformation which is called *encephalocele*, which, in some cases, is similar to the arrest of development which is met with in the spine called *spina bifida*, and when occurring in the cranium frequently gives rise to *hernia cerebri*.

The shape and appearance of the cranium vary considerably, according to size, age, and national characteristics, for in some nations they have the power artificially of regulating the shape of the head. As this cannot be called exactly a deformity, I shall not consider the subject farther. The cranial walls are found in some instances to be very thick, in others very thin, and on some heads can be distinctly seen, although there are developed more or less on all heads certain bumps or enlargements, which offer great inducement to the exhibition of the phrenologist's powers in allotting to each bump a supposed known quality or instinctive propensity, so much so that every vice, moral quality, or animal propensity is supposed to have an allotted space on the cranium; and where certain bumps appear larger than usual, these phrenologists assure us that this increase and enlargement indicate most surely a greater tendency or proclivity to whatever vice, quality, or moral faculty the bump stands for, according to the phrenological catalogue. As I do most strongly believe in physiognomy, and the aptitude that some people have of reading a person's character by looking at their face, and can

(a) See foot-note (a), page 390.

(b) Spencer's "Psychology," vol. i., p. 493. (No italics in original).

detect when it exists as a character, amiability, determination, bad temper, &c., and a well-formed prominent forehead frequently demonstrates a greater development of the anterior cerebral lobes, and by this means a likelihood of the existence of "greater brain power," and thinking qualities.

In the same manner, I disbelieve very much what a confirmed phrenologist has taught himself to believe—who, I may mention, frequently belongs to a class of people who are utterly ignorant of the anatomy of the brain, or the osteological characteristics of the cranium—for in many cases, if they examined these bumps anatomically on the dead subject, they would find they were nothing more or less than heapings up of bony tissue for the purpose of strengthening the skull in those parts most prone to injury. And also in many cases they would find these bumps were not apparent on the internal surface of bone, and therefore did not correspond to the convolutions of the brain. Secondly, as the base of the skull cannot be felt during life, they assign no qualities to the eminences in this situation, which are very numerous, and really do correspond to the lobes and convolutions of the brain, and have a right to share in the allotment of qualities as well as other parts of the cranium. Thirdly, as many of the qualities assigned are developed and generated by the growth of years, and brought about by circumstances more than anything else, and are not innate principles: for example, what was the use of the bump of stealing before stealing was ever practised? and, in like manner, many other propensities might be adduced if it were necessary.

The disease hydrocephalus frequently causes great deformity to the skull, preventing the union of the various sutures and the closing in of the fontanelles. Mercury, syphilis, bony tumours, and inflammatory osseous affections, all have certain deforming effects; but each will be found under such diseases in the various works of medicine and surgery.

**Deformities of the Ears.**—The pinna and lobes are found to be occasionally enlarged and hypertrophied, and attain an immense size, whereas in others the pinna merely "sticks out," causing great annoyance to the person thus affected. In countries where the people are in the habit of inserting heavy rings and stones into the lobes of the ears, causing occasionally great distortion, appliances are made to remedy this deformity of the ears "sticking out," such as a steel band passing over the head and concealed by the hair, with small pads fixed to either extremity, which rest on the projecting portion of each ear. Disease, such as epithelioma, frequently affects this organ, destroying a great portion of the pinna and lobes by its ravages.

**Deformities of the Eyes and Appendages.**—We meet with a variety of acquired deformities in this situation. Rarely, indeed, are congenital deviations met with; and as the changes in the body of the eye are more the province of the oculist, I will confine my observations to the appendages of the eye, with the exception of squint, which can be in nearly every case improved by surgical operation.

1. *Strabismus*, or *squint*, signifies a permanent position assumed by the eye by the contraction of either internal or external recti muscles, hence termed convergent or divergent, the former being the most common. The internal squint is seen generally in young children, said to be acquired by the habit children get of turning their eyes in to look at the tip of their nose. It can be removed by division of the internal rectus muscle; and if the divergent, by the diversion of external rectus. Strabismus may also be caused by fright, or may be the effect of some obscure nervous affection.

**To divide the Internal Rectus Muscle.**—Place the patient, if old, on a low chair—if very young and unruly, lying on the back in the recumbent position—and chloroform administered to quiet the patient, as children are very troublesome, and will not generally keep quiet without some anæsthetic. The lids of the squinting eye are kept apart by the eye-speculum, or by the fingers of an

assistant. The surgeon then directs the patient, if conscious, to look outwards, and a small piece of the conjunctiva is pinched up with a forceps close to the insertion of the muscle into the sclerotic, and divided with a sharp pair of scissors; the sub-conjunctival tissue is then divided through, and the insertion of the muscle comes into view; a blunt hook is then passed between the tendon and sclerotic, in order to separate its attachment fully; it is then divided, and the operation completed. If the external rectus requires division the very same steps are carried out, with the exception of the primary incision into the conjunctiva, which is made in this case opposite the insertion of the external rectus into the sclerotic coat, at the external canthus of the eye, a little charpie, or wet lint, is applied to the eye, and bandaged up and not looked at for some two or three days. During the time of the operation you are recommended to bandage the sound eye, in order to have as full power over the affected eye as possible.

2. *Ptoxis*.—This is a deformity of the upper eyelid, and signifies a permanent drooping and inability to raise the upper lid when required. It may arise from many causes, among which I may mention—1. A redundant, or hypertrophied state of the upper eyelid; 2. Traumatic causes, as wounds, &c.; 3. Weakness or debility; 4. Paralysis of the levator palpebræ superioris muscle.

**Treatment for the First Form.**—A transverse piece of integument is removed from the lid on the outside, the edges of the wound brought together with suture, and this generally succeeds. If hæmorrhage occurs from the wound, the application of wet lint nearly always stops it. The non-affected eye after a few days ought to be covered with a shade, in order to make the patient use the affected eye as a necessity, and endeavour to lift the affected eyelid. A similar treatment, with modifications, will be applicable for the second form. The third and fourth will be better treated by constitutional medicines, and, locally, blisters and galvanism.

3. *Entropion*, or *Inversion of the Eyelids*.—This deformity is generally seen in the upper eyelids. There are three forms met with, according to Mackenzie—1. Traumatic; 2. Acute, or spasmodic; 3. Chronic, or inflammatory.

The first may occur from any traumatic cause, such as wounds, or scalds and burns, or the accidental introduction of some caustic substance, such as quicklime, or other irritating substance. The treatment of such will depend on the degree and variety of the accident, and some of the operations that will be afterwards mentioned will be applicable with slight modifications.

2nd—*Acute*, or *Spasmodic Variety*, may be compared with advantage, to the 3rd, or chronic, or inflammatory variety. The former is attended with little organic change in the affected lid, the latter is much changed; the former is found in people generally advanced in years, the latter in those younger; the former in healthy subjects, the latter in the scrofulous and debilitated; the former is generally confined to the external side of lid or integument, the latter generally due to inflammation of the conjunctiva.

**Treatment.**—In the acute, chronic, or traumatic form, the great point is to endeavour to remove the conjunctival or tarsal inflammation; in the acute, the application of collodion is recommended to be applied to the outside of the lid every two days, until a cure is effected; if not, an operation may be performed—1. A transverse elliptical piece of integument may be removed, and the cut surfaces brought together with sutures, and when union takes place the cure may be effected. 2. Janson, of Lyons, instead of a horizontal piece of skin, removes a vertical slip, and brings the edges together in the usual way. 3. Escharotics have been applied before now with advantage to cause a denuded and irritating surface, which produces contraction by the necessary granulation and cicatrization. 4. Mr. Haynes Walton insists on the removal of the ciliary portion of the orbicularis palpebrarum, believing the deformity to be due to its over-action. 5. Saunders cuts out the whole of the tarsal cartilage. 6. Ware believed

that a perpendicular incision through the whole thickness of the lid, opposite to either canthus, was the best operation. 7. Sir Philip Crampton made two perpendicular incisions on the inside of the lid, and this has since been modified by joining these two incisions in the form of an H. For further information on this subject you may consult with advantage the papers of Sir William Wilde, (a) Sir Philip Crampton, (b) or the works of Haynes Walton (c) and Mackenzie. (d)

4. *Ectropion*, signifying eversion, or turning out of either eyelids, I have generally seen in the lower, the result of contraction after burns, producing at times great deformity, caused by a thickening of the conjunctiva, induced by long-continued inflammation, the result of the various forms of muco-purulent ophthalmia. It may be also caused by the contraction of a cicatrix on the cheek, arising from burns, scalds, or some traumatic cause, or it may result after the healing of an abscess in the lower eyelid.

Treatment depends more on the inducing, or predisposing cause. If due to long-continued inflammation from irritation from ophthalmia tarsi, some diluted citrine ointment applied, or some astringent collyrium; if due to excoriation of the lid, owing to the application of irritating and constant discharges, everything applied to soothe the parts and remove the primary inducing cause.

There are various operations recommended, among which I may mention—1. To remove a V-shaped portion of the lid, bringing the edges together with sutures. 2. Removal of portion of conjunctiva. 3. Separation of material adhesions, and then removal of portion of conjunctiva. 4. Freeing the adhesions in every direction, and transposing the lid by drawing it up and maintaining it in the natural position by suture. 5. By denuding the skin by the constant application of caustics and irritating substances, for the purpose of inducing further contraction. 6. Transplanting new skin from the cheek. 7. Enlarging the separation of the lids by incision, to ease the tension and produce relaxation at both temporal and nasal extremities.

5. *Lagophthalmos* (or *hare-eye*) signifies an inability to close the eyelids, and may be caused by disease or paralysis of the motor nerves in this situation, a cold blast, or some other muscular or nervous derangement; it causes at times great irritation and inconvenience, for even during sleep the eye remains partially open, and dust and foreign matter are constantly getting into the eye. If it arises from cold, it generally gets well in a few days; if from paralysis it is very tedious—galvanism and blisters may be applied; if due to a cicatrix, this must be freed, and all tension and contraction of parts relieved by transposition of integument.

6. *Ancyloblepharon* signifies union of edges of the eyelids; it may be partial, or it is said to be very rarely congenital when the union is complete; it may also be caused by the explosion of gunpowder, or other explosive substances. I saw such a case—the affection remedied by incision and separating of the lids during their whole extent.

7. *Symblepharon* signifies union and adhesion of the lids with the globe of the eye; it may be caused by the same causes that produced the last deformity, or by the accidental introduction of lime and other irritating substances into the eye. This form is very troublesome to treat, as these adhesions may be freed, and the lids separated from the globe for the time, but they are nearly always sure to unite again. Very slight bands of adhesion may be divided without the slightest difficulty.

8. *Tumours of the Eyelids*.—We not unfrequently meet with small tumours and permanent swellings in this situation, producing very apparent deformity. There are a

great variety, among which may be mentioned warty growths, enlarged cutaneous follicles, vascular tumours, or naevi, small cystic and hydated tumours. There is a small tumour which I have frequently seen, and it is called the tarsal tumour, or chalazion; it varies from the size of a very small pea to the size of a bean; it can be seen on the outside, and when the lid is everted it can be also seen on the inside; it is filled with thick sebaceous matter. It is operated on from the inside of the lid, by making an incision into it and breaking up the contents with a probe. I operated a short time ago on a young lady for one of these tumours, and before she would allow me to touch her she made me promise I would not leave a mark behind, which, I need hardly say, was prevented by operating in the manner just mentioned. Other tumours and growths are operated on and treated in the same way as similar growths in other situations of the body, but in all cases great care should be taken to leave as little resulting mark or cicatrix as possible.

#### DEFORMITIES OF THE NOSE.

This organ in some people is found to be greatly enlarged, and by its excessive size and unsightly appearance by no means maintains or improves the symmetry and good looks of the face. The skin and areolar tissue are found greatly hypertrophied, until the nose sometimes attains three times its usual size, the sebaceous follicles are enlarged, and secrete in proportion more than usual, the nose assumes a deep red colour, and the large veins are seen coursing on the surface, giving it at times a mottled appearance. The common appellation applied to it is the "brandy, or port-wine nose," as it is generally supposed to arise in those people who are fond of high living, good wines, and the usual pleasures of the table, which, no doubt, is very true in most cases; but I have met with this hypertrophy in people of the most abstemious habits. Inherited gout frequently will give the nose such an appearance. In addition to the hypertrophy, we find encysted tumours and warty growths, which, if desired, can all be removed by operation. During the operation it is as well to pass a finger or spatula into the nostril, and with a sharp scalpel to pare the growth away slowly, keeping the knife close to the cartilage. There is generally profuse bleeding, which can be easily stopped by the application of strips of wet lint and styptics, and twisting the bleeding vessels. Disease frequently produces great deformity in this situation, such as lupus, syphilis, and epithelial cancer, which all have the effect, after a time, of destroying the nose completely, and leaving the patient very much deformed. The nose may be also removed by direct violence and accident, and has before now been completely bitten off. The treatment for such cases, when possible, is to construct a new organ, to remove the unsightly appearance of the patient, and for which purpose we find two operations recommended. Tagliacozzi, in 1597, performed an operation for the construction of a nose by taking a flap of skin from the inside of the arm, and hence called, from the originator, the *Tagliacotian Operation*; but owing to the uncertainty of union, the very tedious position of keeping the arm tightly bandaged to the nose, and maintained for nine or ten days, and the extreme difficulty of preventing movement of the arm, and displacement of the flap during sleep, the operation, I may say, has been completely given up for what is termed the Indian operation, which in every way offers great advantages, and far supersedes the other, not only in successful results, but by being easier in performance, and by giving the patient little or no annoyance when compared with the tedious annoyance of the Tagliacotian method. In the Indian operation the flap for the new nose is taken from the front of the forehead, which is brought down, made into the shape as near as possible of the original organ, and the flap is maintained in such a position by sutures and plaster, which after a time becomes firmly united, and removes to a great extent the unsightly deformity.

The steps of the operation and mode of procedure re-

(a) Wilde "On Entropion and Trichiasis."—*Dub. Journal of Medical Science*, March, 1844.

(b) Essay on the Entropion, by Philip Crampton, M.D. London. 1806.

(c) Haynes Walton on "Operative Ophthalmic Surgery." London. 1853. Page 157.

(d) Mackenzie on "The Diseases of the Eye." London. 1854.



quire a good deal of accurate judgment, to ensure taking the exact amount of flap and new material, in order to fit in evenly to supply the deficiency; if too little is taken there will be much stretching, and consequent manipulation, which in no way improves the future vitality of the flap, which runs a very good risk of sloughing. So in all cases it is better to take too much than too little, as if too large, the excess can easily be removed by the knife or scissors. The first step in the operation is the consideration of the size and shape of the flap to be removed from the forehead. This can be ascertained by taking a flat piece of gutta-percha and moulding it into the shape of the nose, then, immersing it in hot water, flattening it out on the forehead, and in that way the shape and size of the flap is marked out by ink, red chalk, or tinct. of iodine. The second step is the dissection of this flap from the forehead, and the incisions should commence from below upwards, in order that the outline should not be obscured by the consequent bleeding. The skin, areolar tissue, down to the epicranial aponeurosis, should be divided and raised, and the flap should be made to have a sufficiently large and deep attachment between the eyebrows, as that is the most important situation in the whole flap. The third step in the operation consists in paring what remains of the nose, so as to leave a raw triangular surface. The fourth step consists in twisting the flap on itself and bringing it down, fitting it into the deep triangular groove made, and maintaining it in that position by sutures. The edges of the space where the flap was removed from the forehead should be brought together as near as possible, but not altogether, or the tension will be so great as to cause the sutures to ulcerate through. The rest to be covered with wet lint. A small piece of lint steeped in carbolic oil should be inserted under the flap to endeavour to maintain its angularity, as, owing to the deficiency of the cartilages of the nose, it always has a tendency to become flattened. When all bleeding has entirely ceased, a little carbolised tow may be applied, to prevent suppuration, if possible, and also to keep the flap warm and prevent a likelihood of sloughing from loss of vitality. It is then gently bandaged up, and not disturbed for three days, and then merely to see the state of the flap, and remove the lint; but as little manipulation as possible should be observed. The sutures should be removed when adhesion has taken place. The fifth step consists in the separation or paring down of the root of the flap, as being turned on itself necessarily produced deformity. This may be done when complete lateral union has taken place. The sixth step consists in the formation of the columna nasi, which is taken from the upper lip. This flap is removed in very much the same way as the other, and, simple as it may appear, is found by far the most difficult part of the operation. Various portions of the nose may be alone deficient, and require to be remedied by surgical operation, which will vary according to the circumstances of the case. The nose is frequently congenitally deformed in double hare-lip, and frequently broken by blows and severe traumatic injury.

#### DEFORMITIES OF THE CHEEKS

May be caused by a variety of causes—such as, disease, accident, paralysis. Bony and fibroid tumours not unfrequently occur in this situation, growing from the superior maxilla, producing at times great deformity. Small encysted tumours may also occur in the substance of the cheek. Tumours growing from the antrum are occasionally seen, and are only cured permanently by complete removal of the cyst-wall. A great part of the cheek is frequently destroyed by cancer, and in earlier life cancrum oris is occasionally seen, causing the destruction of the cheek by its rapid sloughing and gangrenous effects. I have also seen great deformity in the cheeks produced by large nævi. My distinguished friend and colleague Mr. Porter, Surgeon to the Queen in Ireland, had a most remarkable case under his care, of a man with a large nævus extending all over one side of his cheek and lip, producing a most unsightly deformity. In all operations on the face care

should be taken when making incisions to endeavour to make them as small as possible, and in a direction so as to leave by their cicatrix as little deformity as possible.

#### DEFORMITIES OF THE LIPS

Are caused either by the congenital deformity, hare-lip, or by the ravages of epithelial cancer, cancrum oris, or the retraction of severe burns, as Fig. 22 very faithfully depicts. Epithelioma of the lip, when not far advanced, can easily be removed by surgical operation, leaving little or no deformity behind. The retraction of the lip from severe burn of the neck is also remedied by surgical operation, and greatly improved, as seen in the last-mentioned figure.

*Hare-lip.*—This is a deformity we occasionally meet with, and signifies a congenital fissure, or perpendicular division of the upper lip, and is named from a fanciful resemblance to the upper lip of a hare. It is caused by an arrest of development, and non-union of the central part of the lip to the lateral portions of one side or both. If the union is deficient on one side only, it is called *single hare-lip*; if the central portion is not attached on either side, it is called *double hare-lip*. In very early foetal life the intermaxillary or premaxillary bone is distinct, and separated from the superior maxillary, and corresponds to this portion of the lip, and, containing in it the incisor teeth, the lip tissue may be fissured, and also the bone, and the fissure extending backwards, giving rise to cleft palate which is nearly always present in cases of double hare-lip, in which case the central portion of the lip is attached to the intermaxillary bone, the two lateral portions to the superior maxillary bone, and this causes great deformity, giving the person a very different look when compared with a natural and well-formed waved outline of the lips, as seen in a symmetrical face—so much so that the union of the lips forming the mouth has been likened to a fanciful resemblance of "Cupid's bow." Most mothers will assign the deformity to some maternal impression they received during pregnancy. This deformity can alone be remedied by a plastic operation, and as there are such a variety of ways and means for operating, I will refer you to the subject in the various books of surgery, where you will find the different methods discussed at great length. In simple hare-lip, without complication, some surgeons say the younger the child is operated on the better; I should rather recommend, if possible, before teething, but not sooner than the third or fourth month. The edges of the fissure are pared and brought in perfect apposition; if they will not exactly correspond a little more is pared off, and they are then brought together and maintained in that position with hare-lip pins, and the figure of 8 twisted suture—some prefer the interrupted suture—which are removed on the fourth day, when adhesion has taken place. The pins are then withdrawn, and great care should be taken when drawing out these pins not to draw asunder the parts and break up the adhesions. In conclusion, I would strongly advise you to read a most valuable and able article on the subject by the late Mr. Maurice Collis. (a)

(To be continued.)

At the annual meeting of the King and Queen's College of Physicians, Ireland, held on October 19, Surgeon-Major T. M. Bleckley, M.A., M.D., C.B., Army Medical Department, was unanimously elected a Fellow of the College, *causa honoris*, in recognition of his services as senior medical officer of H.M. (hospital) ship *Victor Emmanuel* in the late Ashantee campaign.

(a) "The Æsthetic Treatment of Hare-lip, with a Description of a New Operation for the more Scientific Remedy of this Deformity." By Maurice Henry Collis, M.D. Univ. Dub., F.R.C.S.I., Surgeon to the Meath Hospital and Co. Dublin Infirmary, Examiner in Surgery Royal College of Surgeons of Ireland. (*Dublin Quarterly Journal of Medical Science* for May, 1868)

# ABSTRACT OF AN INTRODUCTORY ADDRESS DELIVERED AT THE LEDWICH SCHOOL OF MEDICINE, DUBLIN.

By JAMES E. KELLY, L.R.C.S.I.,  
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GENTLEMEN,—Deputed by my colleagues to deliver the address introductory to the session 1874 and 1875, I approach the task with a very natural combination of satisfaction and hesitation. The duty is most important, and as long as any value is attached to such deliveries it is worthy of the best efforts of the best among us. . . . Unless for those who believe either in the intuitive philosophy, or the incorrigible perversity of the rising generation, I can recognise no reason for what seems a neglect or oversight which appears yearly to become more general in this country. . . . The difficulty of introducing new topics into an inaugural address will be appreciated when I remind you that some fifty are delivered annually in Great Britain and Ireland. In this age of ours, in most things, to be original, one must, I fear, be revolutionary—a thing fit to the hand of the young and sanguine who have not “given hostage to fortune,” but deeply dreaded when years and responsibility steal upon us. While avoiding revolution and radicalism, let us be progressionists professionally, but let us be such with caution, as the architects of old, who ever built their temples on the surest foundations, and placed their idols on pedestals of bronze. Let us consolidate the ground while Providence will permit us; and should the fire of investigation ever demolish our superstructures and our theories, the basis we shall now lay, like the pot-earth under the old St. Paul’s Cathedral, will serve as a foundation for a nobler and loftier successor. . . . You should remember that the uneducated among you will bring contempt on our profession, disgrace to himself, and to his patients infirmity or death, for, as Dr. Gregory remarks, “there are many physicians in name, but few in reality and effect.” I do not seek for applause to-day, and consequently I shall not flatter you; I know most of you are capable of much more than many of you shall accomplish, and my intention is to place before you, once at least, in your student career, those disagreeable truths which, in consequence of being most frequently told us by our truest friends, are termed “home truths.” It is not my intention to inflict upon you an exhibition of my own erudition, or to trouble you with topics in which you can have very little interest until you shall have ceased to be students. I shall speak to you of yourselves, and with equal freedom of your good and of your bad qualities.

To treat of a subject philosophically, one must not make merely a superficial investigation, but he must examine its object and origin, its development and modifying circumstances. . . .

Your ultimate object is a noble, a God-like one, and, according as you succeed in attaining it, you also shall be noble and God-like; but if you fail, owing to your own neglect or wilful deficiency, you shall be no less degraded and ignoble. Your vocation is to assuage pain and diminish the ills of the flesh. This is your true object; but, alas! one of the rarest subjects of contemplation. Nothing is so short-sighted as the habit men have of making a goal of a proximate or intermediate occurrence, such as the preparation for some examination, or the acquisition of a means of subsistence. One object, the highest and the best, necessarily includes all the minor and intermediate advantages attainable in our profession. Hence, self-interest coincides with duty and humanity in urging you to aim at the highest condition of perfectability. Each one of you should place before him the highest position in your profession, and strive manfully to reach it. Thus you shall at least attain a position of honour in the land, and escape the slough of inefficiency and ignorance which closely environs the populous realms of mediocrity. . . . The function of a medical man is very complex, for in the consummation of his duty as the assuager of pain he must undertake

many other responsibilities, and frequently he holds not alone the lives of his patients, but their honour, their happiness, and their fortunes in his keeping. Those functions are inseparable; a patient’s disease is caused or complicated by some mental or temporal contingency, and it becomes the first duty of the keen practitioner to investigate every circumstance influencing his patient. He will often realise the Aristotelean dictum, “The philosopher should end with medicine, the physician commence with philosophy.” He should possess the combined attributes of the Christian, the gentleman, and the scholar, and he should ever remember that “physic is a glorious profession but a vile trade.”

The encroachments of the female sex on these prerogatives, which we were wont to regard as exclusively ours are becoming, more striking every year. With their insinuating invincibility of character they are gradually making head against all opposition, and if we can read the signs of the times aright, they will eventually gain their end. Considering the movement dispassionately, the question may be resolved into the following heads: Is a woman a rational being? Is she worthy of freedom of action? Should her privileges be decided by might or right? I think there cannot be a dissentient on these heads. Women, being rational, should have freedom of action, and the remains of gallantry bid us to listen to their pleas, even if our experience cautions us against arguing with them. Let us disclaim any participation in the unmanly threat that, by claiming an equality with us, women forfeit all right to our respectful consideration. I do not think the gentlemen of which our profession is principally composed shall, under any circumstances, forget what is due to themselves. The female population in this kingdom exceeds the male by some millions. We have a glut of educated single women, and it would be well if a greater number of legitimate fields were opened to their questionable ambition. I would extend to them the amount of liberty of action advocated for men generally by Mr. Stuart Mill—that which does not interfere with the welfare of the nation or of other subjects. I do not know that surgery or medicine would be included, because I cannot allow that their superior suitability for any branch of practice can be proven. There is hardly any branch of our profession which, on occasions unforeseen and sudden, if unfrequent, demands more of the male attributes of courage, decision, and physical strength, than obstetrics. In emergencies, it is said, the lady doctors would ask our aid; but the propitious moment may be lost, and even if assistance were at hand, it would be of no more avail than that of the nearest labourer, were we excluded from the practice of the art. Should the Legislature admit women to our profession, let us decide the question of precedence, not by unmanly threats and unworthy acts, but by a generous competition. By unwise opposition let us not afford a basis for the accusation that we fear women as competitors; but let us extend to them manly consideration, and even brotherly forbearance.

I shall sketch an extreme, but not an exaggerated example of the dangers which wait upon you. This year a student comes fresh from home or school influences, earnest, healthy, and pure. He makes the acquaintance of a few of his seniors, who engage to teach him the habits of good society. He is led from saloon to theatre, from bar to billiard-room, from Gin Street to Beer Street, and he is nightly allowed to find his way through all the perils of the city to some lonely lodgings in the suburbs. He quickly acquires the latest novelties in slang and comic ditties, and deems himself a man of fashion. Soon, in his turn, he becomes the instructor of ignorance, and thus acquires a proficiency and a polish, while he utterly neglects his duties. Anxious to instruct his pupil, and vain of his new acquirements, he becomes ostentatious and aggressive. He swaggers through the city with insult in his eye and aggression in his gait, exciting the contempt of every true man, and the disgust of all except the very meanest of his own class. He

forfeits self-respect, and with it depart honours, honesty, and decorum. In private his fellow-students laugh at, or with him, and then he should remember, as Hobbes remarked, that laughter is akin to contempt, for in public the more respectable avoid him, or pass him with a furtive and conscious recognition. In a few short months this boy is transformed into a premature drunkard, squandering his precious time, or, by contracting one fell disease, he brings upon himself a life of misery and a death of shame. Such an inauguration of an honourable career is not a fanciful picture described for scenical effect, but a sketch taken from real life. I cannot impress you sufficiently earnestly with the dangers of bad example; you will generally find that those most capable of affording it are students who have spent one, two, or more years unremuneratively. Their habits are in keeping with their deficiencies. The dissecting-room is their cigar divan, and gossiping is their chief employment. They practise pantomime in the lecture halls, which they would divert into theatres of variety. . . . The sympathy with our fellow-men, so essential in our profession, tends to the establishment of equality and fraternity, which often engenders amongst you undue liberty of thought and action. Another evil is the protracted period during which a student may be exempt from any test of his industry and knowledge. During the first term of your first year some of you may not exactly know the manner in which you should commence your studies, and diffidence, or want of interest, may prevent you from seeking information. Others among you think and feel that you lose little by subtracting a short period of enjoyment from a term of years. Thus, and similarly, Christmas and its vacation arrives, and another term finishes his first session, and such a student returns to his friends with a goodly stock-in-trade of flippancy and fast manners added to his original ignorance, hoping to escape detection, and longing for the ensuing session, that he may return to town to resume those agreeable pastimes with which he dissipated his first year:—

"If not so frequent, would not this be strange?  
That it is so frequent, this is stranger still;  
Of man's miraculous mistakes, this bears  
The palm."

A medical student should be of an age between the thoughtless schoolboy and the young man with habits of dissipation and a mind unused to study—he should have a natural vocation for his profession; possessed, at least, of moderate ability, he should have a sound preliminary education, and especially some knowledge of the art of reasoning and of natural philosophy. The remaining essentials are docility, industry, and conscientiousness. Most of you possess the majority of these attributes, and a little additional earnestness would compensate you for the deficiencies. . . .

Were I asked to mention the great fault of our system of medical education, I would unhesitatingly say that it lay in the preponderance of superficial theory over sound practical knowledge. We hear of practical anatomy, clinical medicine, experimental chemistry, &c.; but it would be well to devote to them much more care. Students apply themselves to those special branches very unwillingly, and in a superficial manner. Their excuse is that they are not remunerative at examinations. . . . Do not flatter yourselves that you have acquired useful knowledge when it merely enables you to stumble slipshod through an examination which, by accepting a shabby compromise, allows loose and worthless explanations to eke out awkward manipulations, and to pass muster for the practical, the true criterion of a man's real knowledge. Examinations at the termination of each session would effectually prevent this suicidal neglect, and in addition, would indicate the proper sequence or order to be observed in professional studies. This would possess for you an additional charm—that of facilitating the acquisition of your diplomas, for which, however, there should be a complete exami-

nation, comprising a selection from all the subjects of the curriculum which are of true practical utility, and irrespective of any previous test. Examinations, to be useful, must be incentives to progressive development. They should not be placed before the student in any possible sense as the ultimate objects of his studies. Rather than being ignoble goals, they should be as mile-stones placed on the highway of science, at fixed distances, to be passed in undeviating succession and determinate periods. This lies with the examining boards, and on them rests the responsibility of effecting progress. By rigidly separating the practical portion of the examination from the theoretical, and thus preventing an unscientific jumble of the two, and by dealing with the noble and sound principles of the several subjects, to the comparative neglect of minute details and useless "tips," they could wield a magic wand for the conversion of much dross into refined gold. Then an examination would be, as it should be, a test of a man's fitness to go forth as a student of Nature, to labour for the elucidation of its great truths. There is much dissatisfaction among you, owing to the kaleidoscopic changes which occur of late years in medical legislation. The senior student justly complains that he has entered the profession with the tacit understanding that the prospectus was his guide. One, two, or three years elapse, and suddenly the whole scene changes; new bye-laws are enacted, new schemes proposed: now he hears of fearful and unforeseen ordeals; now he is threatened with halves, now with thirds, until, in utter despair, he is perfectly resigned to be hanged, drawn, or quartered, to escape the racking uncertainty. Before any important changes are made in the prospectus, justice would demand that intimation thereof should be given equal to the time which is supposed to be occupied by the curriculum, and such is the practice of some licensing bodies. Here we have new ordeals added on a notification of a few months, with the questionable excuse that they are contained in the list of subjects recommended to the attention of the student. As well might you be suddenly called upon to undergo an examination in logic, or in natural philosophy, as in forensic medicine, chemistry, or botany, if hitherto these subjects were actually omitted from the system of examinations. I am not prompted to these remarks by any censoriousness, but with the hope that the free discussion of a subject which is so unstable as medical legislation may suggest to those in power a little consideration for the tempest-tossed student. Unquestionably changes are needed, but they must be radical and deliberate, and not the fitful outgrowths of transitory reaction.

The essentials for wisdom are observation and reflection: the former will bring you knowledge and learning, but can never give you the wisdom which results from the exercise of reflective powers; knowledge is to wisdom as the raw material is to the manufactured article—crude, and comparatively worthless. The duty of the young student is to cultivate his powers of observation, and lay up stores of material for the subsequent development of his reflective faculties. The student who has reached intellectual zero passes through the lecture-hall and the dissecting-room with his eyes and ears hermetically sealed, and his hands firmly rooted in those comfortable receptacles so conveniently placed by the obliging tailor. Day after day, year after year, he walks the hospitals and the school, a model of intellectual adamant, until, by some obscure process of illicit distillation, he is converted into a spurious article, which somehow is imposed as genuine on the public. Well may the great Gregory have said of such men, "I am sure I would not trust one paw of my great Newfoundland dog to a consultation of thirty, or of three hundred." Certainly it is no true ambition which prompts many men to neglect reason, culture, and skill, unless it is of examinational value.

As students of medicine, it is well that you should have a clear conception of the subject which you are supposed to learn, and with names of which you are already fami-

liar. They may be divided into two classes, termed primary and secondary, the former few in number, including those sciences which have a distinct individuality, as anatomy, chemistry, natural history, and natural philosophy; the secondary being such as result from a combination or fusion of two or more of those first mentioned, as physiology, materia medica, surgery, practice of physic, and a host of others. Therapeutics, or the treatment of disease, forms the capital of a noble Corinthian column, the pedestal of which is composed of the primary subjects I have just mentioned. If you follow me for a moment, you will quickly perceive the advantage of this classification. Physiology is principally based on anatomy and physics, materia medica on chemistry and natural history. Of the numerous subdivisions of therapeutics, we shall examine the structure of a few. Pathology is but the anatomy and physiology of disease. Practice of medicine is the offspring of pathology and materia medica. Surgery results from the union of anatomy and pathology. By a similar mode of combination the other divisions of your curriculum can be shown to result from the union of a few primary subjects. Is it necessary to tell you the rational order in which your studies should be pursued? Attend, in the first instance to the primary subjects, and with hardly an effort will you rapidly master their many combinations. This is the most rational, the most rapid, and the soundest method, and one which I would recommend to you most earnestly. Thoroughness is the great attribute of sound learning; it is by no rapid road that you can hope to attain an honourable position among your fellows, but by earnest work and fixity of purpose. No puerilities should be allowed to warp you from your high purpose, and your habits and demeanour should be in keeping with the dignity of your future. A grand motto, and one applied to the great Goethe, "Unhastening, Unresting," would be most suitable to you—ever eager to acquire knowledge, studying and investigating every object which presents itself to your senses—calmly, deliberately, and conscientiously weighing, contrasting, and classifying.

I wish to tell my junior friends the way I would have them study. Your great object should be—elucidation to the chemist standing at the edge of the great crucible of Chaos; not with the world alone, but with this universe, will chemistry coexist. In this also you should follow the rule of dividing your studies into the rigidly practical, and the acquisition of the highest principles, and thus you will favour your mental development while you learn chemistry thoroughly. At hospital, also, be practical in the extreme—cultivate your senses to the very highest degree. Do not seek for the probable, but thoroughly investigate what is with eyes and ears, with smell, and touch, and taste. Be free from prejudice, and critically test all descriptions, and accept of no statement uncorroborated by direct evidence. Pay little attention to treatment during your first year, or you shall tend towards quackery. Inquire chiefly about the principles which govern the various diseases, and never lose an opportunity of assisting your teachers. Thus you will gain their affection, and acquire a valuable familiarity with complicated details. I now have little time to speak to develop all your observative faculties. No circumstance should escape you. In the dissecting-room you prosecute your anatomical studies for the twofold purpose of learning the structure of the human body and cultivating keen observation and surgical skill. For it is in the dissecting-room you acquire the anatomical knowledge and the mechanical skill which, when guided by reason, constitute the fearless and successful surgeon. The desire to do a thing quickly is nowhere more injurious than in anatomy, or more certain to defeat its object. . . . Be self-reliant, make your own dissections, and you shall require no demonstrations. Seek after the great principles of the science, and you may almost entirely dispense with memory. You cannot attend with sufficient application to chemistry. During your studies and your subsequent career it will be your constant guide and reference. With every other science it is inseparably associated. It is, in truth, the

science of sciences, as no branch of physical science is so extensive, and still so unexplored and inexhaustible. When other investigators make their last discoveries they must hand them over for final elucidation to the more senior students. Although I have much to say, I shall confine myself to a few general remarks, as the particular subjects shall be efficiently introduced by the several lecturers. You should combine reason with observation, and constitute yourself perpetual interrogatories, never ceasing to inquire into the causation of facts submitted to you. Be thorough and bold in inquiry, but docile in learning. Freely acknowledge your errors and your ignorance, and thus cheaply purchase information. Refer every newly-acquired item of knowledge to the proper principles, and classify them carefully. Gentlemen, I thank you for your toleration in an address which introduced so many subjects to your attention, and still omitted so many others of equal importance. My object was to benefit you by forcibly reminding you of many things to be shunned and sought after. How well I have succeeded I shall judge by your future conduct at your studies, and I shall conclude with a quotation which ever appears to me most apt—

"Whatsoever thy hand findeth to do, do it with thy might, for there is no work, nor device, nor knowledge, nor wisdom in the grave whither thou goest."

### IDIOPATHIC TETANUS SUCCESSFULLY TREATED.

By H. TALBOT HIGGINSON, M.D., Donaghadee, Co. Down.

ON Tuesday, August 21, 1866, when medical officer of Lisburn Dispensary, I was called in to see Francis —, a boy 8 years old, a dispensary patient, who, I was told, had been labouring under very severe fits. I saw the boy in the evening, and found that he had first been attacked with spasms in his jaws the previous Friday morning—in fact he had awakened out of his sleep with them. When seen, the boy was perfectly conscious, risus sardonicus well marked, also opisthotonos, the belly was board-like, the bowels had been very constipated since the attack, the limbs and body were very stiff, and the toes pointed and turned towards the sole of the foot; jaws were partially open during the absence of the paroxysm, when the patient could with great difficulty and pain swallow small spoonfuls of milk, which he seemed to have a great craving for, and tried with his utmost to get down; the head was thrown back and unable to be bent forwards; he could sleep for ten or twenty minutes at a time, when the paroxysm would return, the jaws contracting forcibly, and the body bent backwards, the boy uttering at the same time a sort of scream through his teeth, and a frothy foam would issue from his mouth. The pulse was rather frequent, but much more so during a paroxysm. I diagnosed it as a case of tetanus, a number of which cases I had seen before, and inquired if the boy had sustained any injury or hurt of any kind; but he had met with none. His bowels had been regular up to the time of the attack, and he had not been troubled with worms, as far as I could make out; he had a good appetite, and was a strong, muscular, healthy boy up to the time of the first attack. The only thing I could attribute it to was, the boy said he had bathed in a river close by about six weeks before, and had remained in it until he found his teeth chattering, which might have set up some nervous inflammation or shock, which had gone on, ending in tetanus.

I at once returned home—which was two miles distant—and made up the following mixture:—

R. Ol. ricini, ℥j.;  
Spt. terebinthinæ, ℥j.;  
Ol. crotonis tig., gtt. xx.;  
Ol. anisi, gtt. x. M.

To be taken in teaspoonful doses ; and also an injection composed of—

R. Ol. ricini, ℥j. ;  
Spt. terebinthinæ, ℥iiss. ;  
Ol. crotonis tig, ℥j. M.

I then returned, bringing with me Maw's injection apparatus. When I got to the house I ordered one pint of thin gruel to be prepared, and in the meantime gave him teaspoonfuls of the mixture with a little milk, which the boy took when he had not a paroxysm. When the gruel was prepared I put about one-third of the injection mixture into it, which I threw up the bowel, when immediately the boy wished to relieve himself, which he did, but no fecal matter could be detected. After this the boy felt rather relieved, and was easier for a short time, but the paroxysms soon returned with the same severity. After remaining with him for about two hours I left, giving directions that the mixture should be given to him through the night until I should see him on the following morning, August 22. I then found he had passed a very restless night, and the paroxysms coming on very often, and even more severe. The pulse was much the same. I then ordered another pint of gruel to be prepared, and gave him another injection similar to the first, which seemed grateful to the patient, and he passed it immediately after, mixed with a small quantity of fecal matter. The boy seemed slightly relieved with this, as at the first. After remaining about an hour, during which time he had some very severe spasms, I left, ordering the mixture to be continued, saying I would return in the evening, which I did, bringing with me a further supply of the injection mixture, when I found the paroxysms had not occurred so often. I then ordered more gruel to be made, the boy at the same time requesting to have his bowels relieved, and gave him another injection, with the addition of one-third of infusion of Cavendish tobacco (℥j. to one pint of water), which also gave him some relief, some portion of fecal matter being distinguished in what passed. I then, after remaining about an hour, left, telling them to continue giving him the mixture, and that I would see him in the morning, August 23, when I found he had passed a very bad night, but the fits had not been so frequent since daylight. I gave him another injection, with the infusion of tobacco similar to the last, and after remaining some time, left, telling them to continue the mixture as before, and I would call in the evening. His pulse was, if anything, scarcely so frequent.

In the evening I found he had had some violent spasms during the day—almost every twenty minutes or half an hour. I then gave him another of the tobacco injections, which the patient expressed his desire to have, which relieved him for some time ; but the paroxysms becoming more severe, I thought I would try how chloroform, which I had brought with me, would subdue the spasms, and kept him under its influence for about two hours, after which time, as the influence went off, he took a most violent paroxysm, his tongue being caught between his teeth and violently bitten, so that the blood ran out of his mouth. I had then to get the handle of a spoon between his teeth and lever his jaws so far open as to relieve the tongue, which after some difficulty I succeeded in doing. This paroxysm lasted half an hour. In an hour's time after the severe spasm had subsided, when he was more composed, I administered another tobacco injection which was retained scarcely any time, but when it came away, was mixed with fecal matter, and gave him great ease, but the belly from the first up to this time had been very hard. After remaining about half an hour longer, I left, ordering him to have an injection of gruel, tobacco, &c., given him every three hours, until I saw him again. Next morning, August 24, I found he had passed a much better night, the spasms not so frequent, the belly not so hard, and altogether he appeared better, the injections having given him great relief. I now ordered him to have as much milk and

beef tea, given him in small quantities at a time, as he could take, and injections of gruel or beef-tea given him three or four times during the day, and in the evening I gave him another tobacco enema, which came away with some fecal matter.

Next morning, August 25, I found he was much better, the spasms not so frequent, and he was able to swallow better ; the belly also not so hard. After this he continued to improve, and was given injections of beef-tea and gruel alternately, and as much milk and beef-tea as he could take by the mouth, with an occasional injection of tobacco if any symptom of spasm made its appearance, until he was free from them altogether, and could eat, which was not for about six weeks, when he got quite strong, and some months after had an attack of scarlatina, which he got over very well, and I believe he is now a strong, healthy boy.

## Transactions of Societies.

### CLINICAL SOCIETY OF LONDON.

FRIDAY, OCTOBER 23RD, 1874.

PRESOTT HEWETT, F.R.C.S., President, in the Chair.

Mr. BRUDENELL CARTER described a case of

BRAIN-DISEASE SIMULATED BY OVERSTRAIN OF THE CONVERGENCE MUSCLES OF THE EYES.

The patient, a young gentleman, was interrupted whilst reading for honours at Oxford, by double vision and vertigo, followed, if the effort to read were continued or soon resumed, by sickness, palpitation, and intense headache. These symptoms were attributed to some obscure affection of the brain, and the patient was directed to leave the university without taking a degree. He remained for some time at home, under medical treatment, without improvement, and, on coming to London for further advice, was told to take a voyage to Australia and back, in order to rest his brain. He did so, but returned no better, and was then advised not to enter into business, and to abandon his engagement to marry. Mr. Carter was consulted about the case, in order that he might say whether the ophthalmoscope revealed anything abnormal in the cerebral circulation. He found the patient to be very short-sighted, and that he had never worn spectacles. In reading, he held his book seven inches from his eyes ; and Mr. Carter ascribed the symptoms to inability to maintain the degree of convergence for many hours. He ordered spectacles to be worn constantly, and reading to be practised at a distance of eighteen inches. In three weeks, the patient returned cured, with his wedding-day fixed and his arrangements for entering into business completed. In his concluding remarks, Mr. Carter said that the case, though exceptional, was exceptional only in degree, and that many patients suffered from headache and other symptoms due only to impaired harmony of the ocular muscles, or to inordinate exertion of some of them. He urged that, in every case of obscure head-affection, the state of refraction, of vision, and of the muscles, should be carefully investigated ; at all events, before a patient was sent to Australia, or advised to abandon his position and duties in life.

Dr. HUGHLINGS JACKSON considered Mr. Carter's paper to be as interesting to physicians as to ophthalmic surgeons. He (Dr. Jackson) referred to a case in which hypermetropia, which was an indirect cause of nervous troubles, had been, by several eminent ophthalmic surgeons and by himself, misinterpreted. It disappeared when appropriate glasses were worn. Since then, he had always considered the state of the refraction of the eyes, as well as the state of the fundus, in patients who had what might be called minor cerebral symptoms. He referred to another case he had seen with Mr. Carter, in which severe headache seemed to be fairly attributable to hypermetropia and astigmatism. He considered that cases of ocular palsy were for the study of the nature of vertigo, the simplest of all cases. It was clear, from these cases, that vertigo was

a motor symptom. It was not due to double vision, as commonly supposed, since it occurred on use of the paralysed eyeball only—that is to say, under conditions in which double vision was impossible. Yet, as a matter of fact, vertigo, in physicians' practice at least, was not commonly met with in cases of ocular palsy. This was owing to the fact that, in the case of the sixth nerve, the patient, so to speak, dodged the paralysis by holding his head stiffly inclined; and, in the case of the third nerve, to the fact that the paralysed eyeball was covered by the drooping lid. In the latter case, the patient did not reel nor feel giddy, but, if he closed the good eye, and if the paralysed lid were upheld, he would, when walking, feel giddy, would reel, and might feel sick. The vertigo was due to "erroneous projection." There was a duplex condition. There was over-estimate of the range of a movement of the eyeball intended but not really performed, and action of movements of locomotion, in accordance with that false estimate, and thus overaction of them.

Dr. POORE thought Mr. Carter's case resembled cases of chronic fatigue of muscle, such as was seen in writer's cramp. As in that disease, the muscle used for prehension of the pen, the first dorsal interosseous, was put upon the stretch for hours at a time; so in Mr. Carter's patient the internal recti were put into a condition of overstrain. And, as in writer's cramp, the muscles refused to act directly the pen was put into the hand, and headache, &c., ensued, so in this patient, who really had "reader's cramp," the muscles refused to act; as soon as reading was attempted, double vision was produced, which recalled the symptoms of former attacks, and headache, vertigo, &c., followed.

Dr. RASCH had witnessed a case of vertigo, nausea, &c., simulating serious disease of brain, in which a large clot was discovered in the external auditory canal. This having been syringed out, the patient immediately recovered. He had often known syringing of the ears to relieve such cases.

Mr. CARTER, in reply, stated that this observation simply confirmed the conclusion at which he had arrived, that no stone should be left unturned in the investigation of all the causes which might produce symptoms similar to those that had occurred in the case which he had just read.

Dr. SOUTHEY read some notes of an interesting case of  
CANCER OF STOMACH AND LUNGS,  
which gave rise to remarks by various members.

A CASE OF THROMBOSIS CAUSED BY A NEEDLE  
was read for Dr. H. THOMPSON.

A young woman of hysterical temperament was admitted into Middlesex Hospital with febrile symptoms of two days' duration. She had pain in the back, languor, and loss of appetite. There was also pain and tenderness in the right iliac region and across the hypogastrium; and, indeed, the whole surface of the trunk appeared to be unnaturally sensitive. There was a systolic murmur at the apex, and the heart's action was tumultuous, but there was no history of rheumatic fever. The day after admission, she became wildly delirious, with a pulse of 160, and a temperature of 105 deg. Fahr., followed in the course of two hours by profuse sweating. On the following day, she had a rigor, with a temperature of 107.4 deg. Fahr., again followed by profuse sweating, and a fall in the thermometer. This rigor was repeated by others, so that, during the fifty-three days she remained under observation, there were rigors on nineteen; mere chilliness of four; both, as a rule, being followed by sweating. Again, vomiting or faintness either concurred with the paroxysm of shivering, or played the part of its representative. Whatever the mode of manifestation, the temperature at the time of the outbreak almost always culminated in a peak—on six days, at 105 deg. Fahr. or more; on twenty-six, at 104 deg. Fahr. or more. Twelve days after admission, phlegmasia dolens, with conspicuous enlargement of the superficial veins, appeared in the left lower extremity, and forty-two days after in the right, and then remained until the death of the patient. About the time of the first appearance of the phlegmasia, she presented symptoms closely resembling those of pericarditis; and throughout the case she complained of aching pain in various regions of the spine. Finally, after a protracted period of delirium, accompanied by profuse diarrhoea, she sank exhausted, and died on the fifty-third day after admission. The treatment consisted, in the main, in the administration of quinine in large doses and in the free use of stimulants. The blood was twice examined during life, and the white corpuscles were found to be inordinately increased. At the post-mortem

examination, there were found to be numerous extravasations beneath the lining membrane of the third ventricle of the brain, but this organ was not otherwise diseased. In the chest, there were subpleural ecchymoses over both lungs, and the organs were oedematous. There was one or two old white patches on the surface of the heart. The mitral valve was thickened, and presented a chain of small vegetations along its auricular margins. In the abdomen, the inferior vena cava, from its commencement to the junction of the renal veins, was filled with a partially decolorised clot, adherent to the wall of the vessel, and channelled through its centre. At its commencement, just above the junction of the iliacs, the vessel was filled with dirty brown matter; and in the midst of this a needle was noticed resting in an oblique direction, with its eye pointing downwards and slightly to the left, in close relation to an opening in the back of the vein, about an eighth of an inch in diameter. Immediately above this, another opening existed, measuring one quarter of an inch in diameter. Through these apertures, the body of the fourth lumbar vertebra could be felt denuded of its periosteum. The left common iliac vein was filled with a brownish-red clot of moderately firm consistence and slightly adherent. The left external iliac and left femoral veins were as small as crow-quills, and were completely occluded by a whitish fibrous plug, which could not be detached from the wall of the vessel. The right common iliac, right external iliac, and right femoral veins were obstructed and narrowed by a tough fibrous-looking layer, firmly attached to the lining membrane. Immediately to the left of the third lumbar vertebra was an abscess, in which a second needle was found, lying obliquely across the body of the vertebra, the surface of which, however, was not eroded. The liver was engorged with blood. The spleen contained several infarctions, one about the size of a marble, softened in its centre. The intestines were much injected; the mucous membrane was the seat of extensive catarrh. The kidneys were normal.

## THE MEDICAL SOCIETY OF LONDON,

MONDAY, NOVEMBER 2, 1874.

VICTOR DE MERIO, Esq., F.R.C.S., President, in the Chair.

MR. P. Y. GOWLLAND showed a specimen of  
A RARE FORM OF POLYPUUS OF THE RECTUM TAKEN FROM A  
FEMALE ET. 41.

The woman had suffered when a child from some bleeding, but had not taken much notice of it until ten years ago, when a growth appeared, which increased considerably, and gave rise to tenesmus and bleeding. Mr. Gowlland removed the tumour, which, on examination, proved to be of the follicular variety, common among children, but rare in adults. He exhibited drawings of this and several other polypi.

Mr. ALLINGHAM stated, in reference to the present case, that there were three kinds of polypi: (1) the follicular condition of epithelial growth, and usually found among children; (2) the polypus of adults, which contains more fibrous element; (3) fibrous polypus, resembling fibroid tumour of the uterus. He did not agree with Mr. Gowlland that the first form was extremely rare in adults, for he remembered several cases among them—one where the patient's age was 34; but doubtless this form was most common among children.

Dr. ROUTH stated that follicular polypi were not so rare among women, whatever they may be among men.

Dr. WILTSHIRE asked if much pain accompanied these cases.

Mr. GOWLLAND, in reply, said that the follicular form of polypus was remarkably free from pain; but in true fibrous the pain was great, and there was a strong tendency to contraction.

Dr. SANBORN exhibited

SOME GELATINE DISCS OF MORPHINE AND ATROPINE FOR  
HYPODERMIC INJECTION.

Each disc contained 1-6th or 1-3rd of a grain of morphine or 1-120th of a grain of atropine, and was capable of solution in a little hot water in a spoon. He advocated their use on account of their portability and their keeping better than the hypodermic solution generally used, in which fungi were apt to form.



Mr. WM. ADAMS then read a paper on

**A CASE OF STRANGULATED FEMORAL HERNIA REDUCED BY LARGE INJECTIONS OF OIL, AFTER STERCORACEOUS VOMITING HAD EXISTED MORE THAN THREE DAYS.**

On Thursday evening, the 13th March, 1873, Mr. Adams was sent for by Dr. Kavanagh, of Deptford, to a case of strangulated femoral hernia in a man aged 48 years. The hernia was on the left side, small, but well defined, and the symptoms were severe; stercoraceous vomiting had set in at 4 p.m. the day previously. All efforts to return the hernia by taxis, aided by the warm bath, were unavailing. The symptoms commenced with pain in the abdomen, on Tuesday, chiefly referred to the upper part and the right side. He had no pain in the situation of the hernia, and therefore the patient believed that the obstruction was not in the hernia, but higher up. The hernia had existed for thirty years, varied in size, but had never been completely reduced, neither had he ever worn a truss. Operation was at once recommended; but the patient obstinately refused to submit to it, principally from his conviction that the obstruction was higher up in the bowels. On Friday the patient remained in the same state; stercoraceous vomiting continued every ten minutes, and all nourishment in the shape of beef-tea, brandy, &c., was rejected as soon as taken. He still refused the operation. Dr. Kavanagh now resorted to a method of injecting large quantities of oil, by which he had successfully treated three other cases of intestinal obstruction, accompanied with stercoraceous vomiting, but without external hernia. Each injection consisted of 2 quarts of olive oil, 3 oz. of castor oil, and 3 oz. of turpentine, mixed together. The injecting was slowly performed, and a gum elastic tube, about ten inches in length, was used. In the present case the injection immediately returned; and in the other cases the injections were not retained at first, but after being repeated at intervals they were retained. On Saturday afternoon, the 15th, Mr. Adams saw the patient again, with Dr. Kavanagh. The symptoms were the same, but extreme exhaustion had set in; abdomen tense, and tenderness on pressure, chiefly over the central and upper part, but absent at the seat of hernia. The condition of the patient appeared to be hopeless; but between 11 and 12 p.m. Dr. Kavanagh again resorted to the oil injections, and about 2 a.m. on Sunday morning the hernia was spontaneously reduced. About 4 a.m. the bowels were copiously relieved, and all the symptoms gradually disappeared; beef-tea and brandy were retained on the stomach, and the progress toward recovery was rapid and complete. He has worn a truss ever since, and is now in good health.

The PRESIDENT mentioned a case which he had seen with Dr. Richardson where an injection tube 20 inches long was used, and olive oil largely thrown in.

Mr. CARR JACKSON said that the diagnosis of intestinal obstructions from fecal accumulation and from hernia could not be too distinctly made. He remembered a case where the patient expressed himself as "stuffed" with feces, and operation for hernia had been suggested, and olive oil to the extent of 5 flasks was thrown in through an O'Beirn's tube, and a quantity of disintegrated fecal matter came away. The patient died; and the rectum was found to be stuffed with fecal masses, and part of it perforated from the distension, giving rise to peritonitis.

Dr. J. M. FOTHERGILL asked if, previous to other means, black coffee had been given, as he had read of its use being successful in some Italian cases.

Mr. ROGERS HARRISON thought the author had confused cases of intestinal obstruction from accumulation with those of intestinal hernia, and that the patient seemed to know more about the matter than the surgeons. Was it likely that hernia existed (as mentioned in Mr. Adams' case) for ten days without giving rise to further general symptoms?

Mr. NAPIER asked whether the injections were used warm or cold?

Dr. WILTSHIRE discussed the diagnosis in this case, and stated that the presence or absence of suppression of urine would give the key to the position of the obstruction. He was in favour of the prompt use of turpentine injections, and against their repetition, as liable to produce strangury. He preferred gruel in place of oil on account of its cheapness, and thought it was very important to make out whether ulceration was or was not present in these cases.

Mr. ROYCE BELL agreed with Mr. Adams as to his diagnosis of hernia in the present instance, and related a case which came under his own charge that was confirmatory.

Mr. GOWLLAND asked what enema apparatus was used, and described one that he preferred.

Mr. J. SEBASTIAN WILKINSON said it was probably a case of strangulated hernia where the omentum as well as the gut was involved, and this accounted for its return under the influence of injections.

Mr. MAUNDER remarked that these injections acted by dilatation of the intestine, or by inciting peristalsis. In many cases of hernia he advocated opening the abdomen above Poupart's ligament, passing the finger and thumb in, and freeing the intestine from within. This he had seen done in more than one case.

Mr. ADAMS, in reply, said that there was no doubt about the existence of hernia in the case he had related, as it could be felt, and was accompanied by stercoraceous vomiting. It was reduced of itself. It was possible that there was some other condition like intussusception present; but the hernia fully accounted for the symptoms. Coffee was not tried. Oil was used cold, and the ordinary stomach-pump with an O'Beirn's tube employed. Most of Dr. Kavanagh's cases were of obscure obstruction, but the one he had related was of hernia; and although he (Mr. Adams) had long been familiar with the use of olive oil in injections, he was not aware of its employment in such large quantities.

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**The Medical Press and Circular.**

"SALUS POPULI SUPREMA LEX."

WEDNESDAY, NOVEMBER 11, 1874.

**THE ACTION OF DRUGS.**

**II.**

IN a former article on this subject we gave some details of the researches of Professor Hughes Bennett and his committee, confining ourselves to the first portion of his report. We now follow up the subject by continuing our analysis of the very important experiments carried out by the committee in order to determine whether Calabar bean and atropia antagonise each other.

Professor Bennett details various experiments with Calabar bean and sulphate of atropia on rabbits, and here we call attention to the fact that in one experiment a rabbit weighing 4 lbs. died in nineteen minutes after  $\frac{1}{2}$  grain of atropia, while another one of same weight recovered after taking the same quantity; also one weighing 3 lbs.  $7\frac{1}{2}$  ozs. recovered after taking  $\frac{1}{2}$  grain. This seems to indicate that weight is a rather unreliable basis on which to estimate the dose.

Further, Table 10, Experiment 133, shows that a rabbit weighing 3 lbs. 8 ozs. died in seventeen minutes after 6 grains of atropia, while (Experiment 143) one of same weight recovered after taking 18 grains. Referring to Dr. Harley's "Vegetable Neurotics," and Messrs. Burness and Mavor's "Specific Action of Drugs," we find that 1-48th of a grain to 1-24th of a grain produces physiolo-

gical effects in a dog, and 1-12th of a grain in a horse, and 1-120th to 1-96th of a grain in man; yet Prof. Bennett states that up to four or four and a half grains no symptoms whatever could be observed in rabbits. "With from four to six grains, there occurred dilatation of the pupil; uneasiness, as manifested by the rabbit moving restlessly about; respirations reduced; and the cardiac impulses were accelerated in number. With from six to fourteen grains, in addition to the symptoms noted above, there were, paralysis, more marked in larger than in smaller doses; slight quivering of special groups of muscles; violent starts of the whole body; and a drowsy condition. With from fourteen grains to twenty-one grains—the minimum fatal dose—in addition to the foregoing symptoms, there were increasing paralysis, and the respirations were reduced both in number and in depth. The animals died, in those cases in which fatal doses had been given, with severe spasmodic convulsive starts and twitchings. The action of the heart and the depth and frequency of the respiratory movements decreased until life was extinct."

Bearing these facts in mind, we see that weight has far less to do with the effect produced than the development of the nervous system; also, how the symptoms vary in different animals, for Dr. Harley (p. 201) says that in the dog the influence on the heart is more strongly marked than in the horse, while the cerebral effects are much less decided; moreover, in comparison of its size, the dog bears a much larger dose than the horse. However, all these experiments serve to show that certain drugs influence certain parts in *all* animals, although not necessarily producing the same train of symptoms in each. And for this reason such experiments are of great value, as, by throwing light on the physiological action of drugs, they at the same time indicate, to a certain extent, the range of therapeutic action, and enable us to use medicine more scientifically and less empirically.

But to pass on. There is one point to which we would like to call attention—viz., it is stated that three-quarters of a grain of extract of Calabar bean is the minimum fatal dose, and to antagonise this only three grains, and in one case four-and-a-half grains of atropia were given (Experiments 152-154). Yet it is stated (*vide* above) that 20 to 21 grains is the minimum fatal dose, and that four to six grains are required before any physiological effect is produced, and that with four grains no symptom whatever could be observed. Such being the case, it is difficult to see how one could expect (Experiment 152) four and a half grains of atropia to antagonise one and a half grains of extract of Calabar bean. The reason why such small doses were given is not stated.

Prof. Bennett remarks, in reference to Table 11 (which records the effects of Calabar bean and sulphate of atropia):—"It will be observed from this table that in one case (No. 148) the rabbit survived for five days. It was very ill for twenty-four hours; it then apparently became well; but on the fourth day it showed no inclination to take food, and on the morning of the fifth day it was found dead in its box. All the other cases died in periods varying from fourteen to sixty-two minutes after receiving the injection of Calabar bean extract. In every case life was prolonged by the use of the atropia, and the symptoms were modified." Yet it is a point worthy of note that one rabbit weighing

3 lbs. 8 ozs., after receiving half a grain of atropia and one grain extract of Calabar bean, was ill for twenty-four hours, and *only* died on the *fifth day*; while one weighing 5 lbs. received three grains of atropia and one and a half grains of extract of Calabar bean, and died suddenly, after seventeen minutes, with slight convulsions; and another, weighing 6 lbs., received four and a half grains of atropia and one and a half grains of extract of Calabar bean, and died in twenty-five minutes, with severe convulsions. Thus it would seem that, when the proportion of atropia was increased, death was hastened in proportion. And again, in Experiment 161, to a rabbit weighing 3 lbs. 4½ lbs., one and a half grains of extract of Calabar bean, followed by three-quarters of a grain of atropia, was given, and death ensued in 100 minutes. Yet (Experiment 165) to another rabbit, weighing 3 lbs. 9 ozs., was given one and a half grains of extract of Calabar bean, followed by one grain of atropia, and here death ensued in *twenty-nine* minutes; and in Experiments 169, 170, and 175, only three-quarters of a grain of atropia was used with success to antagonise three-quarters of a grain of extract of Calabar bean. All these experiments would seem to indicate that where the atropia is given to antagonise Calabar bean in larger doses than three-quarters of a grain, death is hastened than if smaller doses were given.

We comment on these points, for no notice seems to have been taken of them by the experimenters. These experiments at least serve to bear out Dr. John Harley's statements, for he says (p. 217) that in moderate doses atropia is a stimulant to the sympathetic nervous system and circulation, *but* in large doses diminishes the force and activity of the heart. Such being the case, we can quite understand life being prolonged by a small dose, as in Experiment 161, and hastened by an increased dose, as Experiment 165. This dual action of drugs seems to have been overlooked.

Professor Bennett now passes on to record various experiments on rats, which only differ in showing that the minimum fatal dose for a rat is from five to five and a half grains; and at the end of the report he thus sums up:—

"It is evident that the antagonistic influence of sulphate of atropia on the effects of extract of Calabar bean is not nearly so well marked as that of chloral hydrate as an antagonist to the effects of strychnia. Even after the introduction of sulphate of atropia, the symptoms produced by the previously injected extract of Calabar bean continue to be well marked. The animal seems to be extremely ill. There are salivation, twitchings of the muscles, and perhaps slight convulsions. This state of things may continue for several hours, and the animal slowly recovers. In the case of strychnia and hydrate of chloral, if the animal be kept undisturbed, it may not exhibit a single indication of the presence of the strychnia, and it becomes roused from the effects of the hydrate of chloral as if it had received it alone.

"The experiments made on rabbits clearly show that sulphate of atropia does antagonise fatal doses of extract of Calabar bean, but within a very limited area.

"1. Sulphate of atropia antagonises to a certain extent the fatal action of Calabar bean.

"2. The area of antagonism is even more limited than Dr. Fraser has indicated in his paper already referred to.

"In all the experiments made in connection with this branch of the inquiry, it was found that so-called antagonism existed within very narrow limits. The danger was, not death by too great a dose of sulphate of atropia, the supposed antagonist, but death from the effects of the

extract of Calabar bean. In this respect, there was also a marked contrast to the action of hydrate of chloral on the physiological effects of strychnia. In the latter instance, the danger evidently would be, in a case of poisoning by strychnia, to give too large a dose of hydrate of chloral; whereas, in the case of poisoning by extract of Calabar bean, it would apparently be very difficult to arrest its effects by sulphate of atropia, because a small dose of the latter produces little effect (at all events in rabbits), and the effects of the extract of Calabar bean are so violent as soon to destroy life. It results that, for all practical purposes, atropia, as an antidote of Calabar bean, is useless, and not to be compared with the effects of chloral hydrate, as shown by the committee under the next head."

With these conclusions we quite agree, and fully appreciate the value of these experiments in establishing the fact that for practical purposes atropia is an uncertain antagonist to extract of Calabar bean, at least, in *rabbits* and *rats*.

### HOSPITAL SATURDAY.

WE are glad to observe that almost the entire press, both lay and medical, agree with us as to the anomalous character of this fund as at present constituted and managed, or, more properly speaking, mismanaged. From the very first we questioned the desirableness of having two distinct organisations, opposition charity schemes, as they might be termed, one representing the contributions of the Church-going community, the other of that section whose boast it is never to be seen inside the walls of any place of worship. The Mansion House Committee, fully alive to the position of affairs, and anxious to avoid even the possibility of discord, endeavoured to enlist the co-operation of the Committee of the Saturday Fund under their banner, but to no purpose. A factious few had set themselves up as leaders of working-class opinion—the bankers of working men's pence—with what result we need not repeat. We may, however, be pardoned offering a suggestion for future operations: Let each employer of labour be his own committee-man for a working men's fund; let each working man, as he receives his weekly wages, return one penny to his employer, such money to be paid into the Post Office Savings Bank, or into some general treasury where the investment will be safe and a small interest obtained, and the result will be, at the end of the year, the magnificent total of over £100,000, without the vexatious deduction of nearly a fourth of the whole for working expenses, or the discredit of having set aside the vagrancy laws of the land for the purpose of street-begging. We know enough of the working classes to believe that, were this idea put before them in a proper light, they would readily acquiesce; not one of them would miss a penny, and the pride of having contributed so much towards Institutions which are at all times open for their benefit would in itself be a sufficient reward.

Although agreeing with the remarks contained in our last, a leading lay contemporary took exception to our figures when we stated "that the working classes had not contributed the tenth of a farthing per man." Our contemporary evidently did not read the context. We based our calculations upon the last census of 500,000 working men, and said that if each man only gave one penny per week for twelve months, it would have yielded over £100,000, instead of which they had not contributed the tenth of a farthing per man, i.e., of course on the same calculations per week for the twelve months. We maintain the accuracy of our figures: the tenth of a farthing per week for the twelve months would yield £2,703 6s. 9d., and, as this represents about half the sum raised by the Hospital Saturday Committee, and a fair proportion of the whole fund contributed by the working men proper, our calculations are not very wide of the mark.

## Notes on Current Topics.

### The Cost of Disease in Sheffield.

"THE Value of Health" was the subject of a lecture delivered last week by Dr. Hime at the Sheffield School of Art, and in treating it he made some very interesting statements relative to the prevalence of disease in the town. Mr. H. C. Sorby, F.R.S., presided at the lecture, which was given in connection with the Sheffield Literary and Philosophical Association. The lecturer referred to the great advance which had recently been made in sanitary science, and stated that the mortality in London had decreased from 42 per 1000 when the population was only 530,000 to 22 per 1000 at the present time, when the inhabitants numbered 3,000,000. Then, alluding to the expense of disease in Sheffield, he assumed the cost incurred by a sick man to be two shillings per day, and affirmed that a working man earning five shillings per day when in good health incurred a very serious loss when he had to spend the former amount in consequence of sickness. The average number of six days per head of the population was from 19 to 20. Sheffield had a population of 270,000, and reckoning 20 sick days for each person, 5,400,000 sick days were obtained, which, at 2s. per day, represented a cost of £540,000 per year. The average mortality in Sheffield for three years had been 27 per 1000, which, in a population of 270,000, gave 7,314 deaths per year; and if the proportion of cases to deaths in the hospital was the same as that in the town, almost the same number of sick days would be the result. But what advantages would the town derive from a diminution in its mortality? The mortality in Sheffield was at the rate of 27 per 1000, compared with 22 per 1000 in London. The present rate of 27 per 1000 gave 7,344 deaths in Sheffield annually; but if the rate of mortality was only 22 per 1000 the number of deaths would be reduced to 5,940, and the saving of 1,404 lives thus effected would result in the saving of £88,303 per year. The loss to the town by deaths from fever was at least 20,230 for the three years in which 691 deaths had resulted from that disease, but that calculation did not include the cases of fever which had not proved fatal. The lecturer pointed out the importance of maintaining a high average in the length of the lives of the inhabitants, and showed that there was great necessity for the establishment of an infectious hospital in the town. He proved that very injurious effects were produced by polluted soil, inasmuch as currencies of air forced through it by ordinary physical laws passed into the houses erected upon or near it, and spread disease amongst the dwellers therein. Then he spoke of the connection between ground water and fever, and expressed a hope that the Town Council would make an investigation into these matters, which were so important to the health of the people. Discussion was afterwards invited, and the meeting thoroughly agreed that an infectious hospital was needed in the town. A vote of thanks to the lecturer concluded the proceedings.

### A Memorial to the Inventor of Ovariectomy.

It is contemplated to erect a memorial statue in honour of Dr. Ephraim McDowell, of Kentucky, the founder of

**Ovariectomy.** The idea having originated in Danville, where the first operation was performed, was earnestly endorsed by the American Medical Association, at its last meeting in Detroit.

The appeal, issued by a number of the leading surgeons of the United States, declares that ovariectomy has outlived all opposition, and through the record of its success has, by common consent, attained a position in legitimate surgery. Nations formerly arrayed against it are now claiming for themselves the honour of privacy. This honour belongs to America.

In the origination and development of new ideas, the pioneer has often to suffer odium and abuse, and rarely lives to enjoy the fruition of a great discovery. This was peculiarly the case with McDowell.

A modest, unassuming man, of large intellect, rare judgment, strong convictions of duty, and possessing a proper ambition to advance the science of his profession and meet the claims of humanity, he accomplished an act in 1809 in the western wilds of Kentucky, which was not only discredited but denounced by the whole medical world. With a consciousness of right, unsupported and lone, and in defiance of professional obloquy, he performed operation after operation with astonishing success, and snatched from the grave the victims of a disease until then acknowledged to be incurable.

Standing firm, encouraged by results, this undaunted surgeon never faltered, although he had not as yet the prestige of a reputation, nor the approving counsel of a single noted surgeon.

America should not stand alone in this work of love and duty. Every country on the face of the earth is equally the recipient of the blessings of this discovery, and is under a moral obligation to send offerings for McDowell's shrine.

This appeal, therefore, for aid, is first made to the women of the world who have been rescued by ovariectomy; next to the members of the medical profession, whose resources have been so greatly increased; lastly, to all who appreciate this advance in surgery, and regard Ephraim McDowell, the Father of Ovariectomy, as worthy of the gratitude of all the human race.

All contributions to the Memorial Fund should be sent to Dr. James M. Keller, No. 58 Green Street, Louisville, Kentucky, who has been appointed Secretary and Treasurer by the committee.

The appeal is signed, amongst others, by Drs. Atlee, of Philadelphia, J. Marion Sims, Peaslee, T. Gaillard Thomas, T. Addis Emmett, of New York, Gross, of Philadelphia, and Parvin, of Indiana.

### Royal College of Physicians.

THE forthcoming Gulstonian Lectures are to be delivered by Dr. Robert Lee, the Croonian by Dr. Greenhow, and the Lumleian by Dr. Lionel Beale.

The Registrar read to the meeting on the 29th ult. a communication from the Registrar-General, relative to the new statute in regard to certificates of death, which will come into operation in January, 1875. It was stated that since the Registration Act has been in operation, in only 5 or 6 per cent. of cases have the causes of fatal diseases been uncertified by qualified persons. The Registrar-General asked for the aid of the College in perfecting the

form of certificate about to be issued, and for any suggestions the College might think desirable to make relative to the names of diseases and other points. A discussion took place on the question of payment of practitioners for the trouble of certifying the cause of death.

### Scarlet Fever.

Now that scarlet fever is spreading so rapidly in the metropolis, medical officers of health and their officers cannot be too cautious in their inquiries as to its dissemination. Ignorance is often the cause of the increase of this dreadful scourge; and in many instances medical aid is not asked for until it is too late. This disease is sometimes treated by the parents of children as sore-throat and rash, caused by cold, and even when desquamation of the skin occurs, no notice is taken of it; and if the case be a slight one, and the child providentially recovers, it is permitted, after a few days' confinement to the house, to mingle with its playmates in the streets, or perhaps sent to school. This last danger cannot be too carefully guarded against. Some notes of what is being done, and of the extent of the epidemic, may be added. We find that the mortality in London of the last week as yet returned amounted to 1,368 deaths, including 1 from small-pox, 8 from measles, 128 from scarlet fever, 4 from diphtheria, 12 from whooping-cough, 43 from different forms of fever, and 21 from diarrhoea. Scarlet fever, which in the previous week's returns showed signs of diminishing, is evidently increasing, the number of deaths registered from the disease exceeding that of any week since the end of 1870. It was most fatally prevalent in Hackney, Clerkenwell, Mile End Old Town, Bow, Poplar, and Brixton. Dr. Dudfield, medical officer of health for Kensington, in reporting to the vestry of the parish on the prevalence of scarlet fever in the district, hints that the School Board of London might, by the adoption of a rule that no convalescent should be readmitted into a school until all danger of infection was at an end, and by prohibiting the attendance at school of children from infected houses, be instrumental in limiting the progress of the present epidemic. Any action taken by the School Board in this direction would probably be widely followed by managers of private institutions. The Paddington Board of Guardians, in consequence of a patient suffering from scarlatina having been brought to the dispensary after being attended only three days at home, have given directions for posting the annexed notice in the dispensary waiting-room:—"Persons suffering with, or recently recovered from, scarlet fever, are on no account to be brought to the dispensary, as such a practice is attended with great danger to the patient, and is sure to spread the disease. The medical officers will attend such cases at their own homes." Dr. Stevenson, in his report of the health of St. Pancras for the five weeks ending October 3rd, shows that the death-rate during the period was only 15.8 per thousand annually—a figure considerably below the metropolitan average; but scarlet fever caused 52 per cent. of the total mortality. The disease would appear to be increasing in the parish. In accordance with the recommendation of Dr. Stephenson, the Vestry have issued circulars to managers and teachers in schools, ministers, district visitors, &c., calling their attention to the imperative need of isolating all cases of scarlet fever,

and of preventing the intercourse of infected with healthy children. The returns from the fever asylums show that there is no diminution of zymotic disease in London. In the south and south-west districts the number of cases is increasing. At Homerton Hospital there were 211 fever patients, 110 of whom suffered from scarlet fever, 71 from typhoid, and 30 from typhus. There are 34 cases of scarlet fever in the small-pox wards. At Stockwell there are 90 cases of scarlet fever, 30 of typhoid, and 16 of typhus.

### A Mechanical Miracle.

THE *Canadian Medical Record* gives a report of a meeting of the American Medical Association, held at Detroit, at which one of the delegates brought before a full meeting a new instrument which he has invented, and which he styles the "Compound Back-action Aurorecto Micro-spectroscopic Speculum." He insisted and attempted to prove that by its use a diagnosis of piles and ulcer of the stomach could be made out. He attempted by a sketch to show the passage of light to the speculum, but he experienced considerable difficulty in making his hearers understand how, in case the colon was impacted, the beam of light could be made to reach the diaphragm. The description and the exhibition of the drawing is said to have caused infinite amusement.

### The Destruction of Young Life in America.

THE *Philadelphia Reporter* alludes to some startling statistics which have been presented at an investigation into the management of the Foundling Farm, near New York. The assistant in charge of the foundling room testified that there were thirty-six babies at the farm two months ago, and there are now three there, all the rest having died.

If the little ones escape the Foundling farms they meet the Mills. There is a law in many States prohibiting the employment of children under ten years of age in factories. But the last labour report of Massachusetts says that there is scarcely a corporation in Fall River which does not violate the law, chiefly at the instigation of parents, who refuse to work unless their children are also employed.

### Pseudo-Charity.

THE London morning papers teem with the announcement of enormous sums given in what they, no doubt, suppose to be charity, by a few individuals in London. Six separate donations of £1,000 each, together with numerous smaller, but still munificent gifts, make up the total contributions to the London hospitals for the month to considerably over £10,000, which brings the month's benevolence in this way nearly to the level of last December, when fourteen separate donations of £1000 were made by one anonymous benefactor. It is a very unwelcome task to say a word in deprecation of generosity so royal, and intentions so beneficent; but, after all, we cannot but entertain a passing doubt that there is anything very wise or very virtuous in this indiscriminate and apparently thoughtless distribution of great wealth, and we very earnestly desire that benefactions so liberal could be placed in the hands of persons who would bring to the

work of distributing it all necessary vigilance, and the most cautious means of inquiry which are available.

There is—Heaven knows—plenty of demand for all the charitable donations which the most wealthy community could spare; but we have to reiterate our great doubts that any considerable portion of these vast sums ever reaches the deserving poor, or goes to alleviate real distress. If any part of it be turned aside from that object it cannot fail to bring evil upon the community, for it serves as an encouragement to adventurers and jobbers who live upon their wits and upon the careless generosity of the public. Apropos, we observe that it is proposed to divert the pitiful balance which remains out of the Hospital Saturday Fund, after payment of the £1,100 of "preliminary expenses," from the object for which it was contributed, to the building of a Sanitarium at Sheerness. Such a job, if carried out, would form a fitting capping to this movement, which, begotten in the vanity of pseudo-philanthropists, has culminated in the public exposure of the unutterable meanness of "the working man."

### Small-pox Inoculation in Ireland.

At the last meeting of the Castlebar guardians the sanitary officer of the Manulla district reported that there were eighteen cases of small-pox altogether in the five townlands around Castlebar; and the officer of the Ballyvary district reported that there were three cases in that neighbourhood. Inoculation, he said, was carried on to a fearful extent in this district, and that with impunity; and he believed that the majority of cases were the result of this nefarious practice.

The clerk was accordingly directed to communicate the complaint to the Local Government Board, informing them that the guardians had taken all possible steps in the matter.

The clerk said the Local Government Board had given directions to the police to make arrests, but nothing had come of it.

The chairman expressed the opinion that those districts in which small-pox existed ought to be put in quarantine; and one of the guardians said that when the foot-and-mouth disease broke out, they put the districts in which it existed under quarantine, and he did not see why they should not do the same in the case of districts affected with small-pox.

### Students' Lecture Examinations.

As one of the results of the recent discussion at the General Medical Council, we are glad to find that a system of fixed examination and instruction has been established at the School of the Royal College of Surgeons in Ireland. Parents can no longer complain that their sons are left without guidance or interest being taken in their progress. Students, on the other hand, who are at all industrious, will find a constant stimulus applied, while, at the end of the session, they will be furnished with a certificate of attendance which will guarantee to the examining body that a certain course of training has been pursued. The examiner will be thus certified that he is examining one who has availed himself of *bona fide* opportunities, while the candidate will with confidence submit himself to the

test. The certificates are not compulsory, but we apprehend will be highly valued.

In conformity with the suggestion made during the past session by the General Medical Council, that certificates of having attended the periodical examinations of the professors in medical schools should be furnished by candidates for diplomas, the authorities of the School have notified to students that during the present session examinations on the subjects lectured on during each week will be held as follows:—On Anatomy and Physiology, each week; and on Surgery, Chemistry, and Practice of Medicine on every alternate week. These examinations will be practical, oral, and written, and each student must put his name on the papers, which will be retained by the professor for reference and examination; and a certificate of having attended these examinations will be given at the close of the session, which the student can present to the examiner or Council in proof of his attendance and information.

### Change of Anatomical Nomenclature.

In a paper read before the Society of Anatomy at Paris, Professor Goubaud urged a change in the nomenclature of human anatomy in reference to the extremities, so as to facilitate the study of comparative anatomy and palæontology. He proposes that the hand should be placed in pronation; that the bones of the carpus in each row should only bear numeric names, proceeding from without inward; that the fingers also should be numbered from without inward; and that for the foot the bones should be classified in the same order.

### Scarlatina in Ireland.

THE Registrar-General's last report shows an apparent decrease in the deaths from scarlatina both in Dublin and Belfast compared with the numbers in the previous week. The deaths in Dublin were 17, being a reduction of 3, and in Belfast 23, being a diminution of 6 in the previous week's mortality.

### The Professorship of Chemistry in Dublin University.

THE Board of Trinity College and the College of Physicians have announced that the Professorship of Chemistry in the School of Physic, hitherto held by Professor Apjohn, became vacant on the 3rd of October, and that on Saturday, the 30th January, 1875, the Provost and Senior Fellows of Trinity College will proceed to elect a Professor of Chemistry.

The emoluments and advantages of the Professorship consist of the following items:—

- 1st. A fixed salary of £400 per annum.
- 2nd. An additional payment of £100 per annum, on condition that the Professor shall give free laboratory instruction to such Senior Sophisters as shall be nominated by the Bursar.
- 3rd. Fees for lectures and laboratory instruction to be regulated from time to time by the Provost and Senior Fellows.
- 4th. The Professor shall have the use of the College laboratory for analyses bearing on medical chemistry,

and approved by the Provost and Senior Fellows, such as medical and medico-legal investigations, and analyses connected with purposes of public health.

### A New Sanitary Difficulty.

DISTRICT registrars now refuse to supply medical officers of health with the weekly returns of births and deaths unless they are paid twopence a case; and the Registrar-General will no longer furnish the necessary information; neither will anyone be permitted to make copies of the Registers at Somerset House, the Registrar's office: consequently, until some one pays the coveted twopence per case, medical officers of health will be unable to give correct returns of the birth and death rate of their respective parishes; neither will sanitary officers have an opportunity of visiting houses in which cases of infectious disease have terminated fatally.

If the claim be a legal one, by all manner of means let it be paid; but the question is, where is the money to come from? If vestries do not think it incumbent on them to pay, on whom will the responsibility rest? But if district registrars will not give medical officers of health all the information they require, surely, for humanity's sake, they could send weekly, if not daily, a list of houses in which deaths from zymotic disease have occurred, in order that the sanitary officer may not be impeded in the execution of his duty, and not suffer death and disease to be sown broadcast in every direction.

### Homœopathic Dosage.

A CORRESPONDENT in the *Medical Times and Gazette* writes as follows:—

SIR,—In the *Monthly "Homœopathic" Review* for July, 1874, is to be found a would-be sarcastic address delivered by Dr. Dudgeon at the late "Homœopathic" Congress, of which he was the President. In this paper, among other interesting facts, we find the following (p. 419):—"One can now practise pure homœopathy within the bosom of the old school without exciting any opposition on the part of old-school colleagues—indeed with the applause of old-school journalists, and without disqualifying oneself for professional chairs and hospital appointments." This must be indeed good news—for some people; but if it is so easy to practise pure homœopathy within the bosom of the old school (which will probably be a fact previously unknown to most of your readers), it seems to be still easier to practise the system of the "old school" within the bosom of "homœopathy," as the following prescriptions by professed homœopaths now lying before me will demonstrate:—

1. Liquor sarzæ 3xij., kali hyd. 3ijss., ft. mist.
2. Kali hyd. 3v., decoctum sarzæ co. (concent.) 3xij., ft. mist.

This "homœopathic" mixture contains, therefore, four drugs! These two prescriptions are by a well-known City "homœopath," who is a member of the British "Homœopathic" Society, and one of its medical officers!

3. Podoph. gr. iij., ext. hyosc. gr. x., ft. pil. xij., to be silvered.

This is by a provincial "homœopath."

4. Podophyll. tinct. gtt. 30, sulph. 200 3ij. A draught to be taken at once.

5. Tartar emetic gr. iss., ignatia (3rd decimal), 3ij., ft. mist.

These last two are by a City "homœopath."

6. A patent medicine called "Ladies' Ointment," for sore nipples, sold at 13½d. per box by a "homœopath" in the North of London.

7. Mercurius solubilis purus gr. xx., opium purum gr. x., bread gr. xx., ft. pil. xlvij. (in syphilis).

8. Hydrarg. biniod. gr. ʒ, pot. iod. gr. ij., ft. pil. i., ter die (in secondary syphilis)



The authors of the last two are members of the British "Homœopathic" Society, and also medical officers of a provincial "homœopathic" dispensary.

The author of the last lately gave three-quarters of a grain of podophyllin for constipation, and nearly finished his patient off.

9. Tinct. opii ʒi., tinct. conii ʒiij., aquæ ʒviiij., ft. lotio.

This is a specimen of "homœopathic" practice in a large provincial town.

10. A few years ago a cupboard full of "allopathic" mixtures was found at a certain public "homœopathic" institution. To the credit of the lay authorities, it was removed; but the physicians who had employed them, and thus practised under false pretences, were allowed to remain.

There are, I believe, in London, some half-dozen *honest* homœopaths who really do conscientiously believe in Hahnemann's doctrines, and endeavour to faithfully carry them out, and there are a few more in the provinces. These of course all can respect as *honest men*, even when they cannot agree with them; but as for those who practise the old system, while calling themselves homœopaths, no one can look upon them without feelings of *disgust and contempt*.

I enclose my card.

I am, &c.,

JUNIUS.

### Contagion in Board Schools.

LONDON is suffering from an eruption of scarlet fever and the authorities are awakening to a sense of the danger of infection from sufferers in their large schools.

We directed attention to this when it was proposed to establish these schools in the various densely populated districts of the metropolis. Those who best know the habits of the poor will most readily appreciate the difficulties which beset the medical and other officers who endeavour to prevent the Board schools becoming centres of infection. The lowest classes herding together in single rooms, and in houses crammed from roof to cellar with families, dread the visit of the officer of health, because he may compel them to seek less crowded abodes, or incur some little expense which they can ill afford; thus they wilfully run increased risk: if sickness attacks any inmate, instead of flying, as their more prudent and richer neighbours would do, leaving the sufferer to the care of members of the family or a hired nurse, the poor assist each other, sit up with the patient night after night, for none know whose turn may be next to suffer, and all dread removal to the work-house, involving, as it often does, the destruction of bedding, the disinfection of the room, and the breaking up of the little home.

It is not until the inmates have decided that there is danger, that the parish doctor is sent for, then, and not till then, can any effective steps be taken to prevent the diffusion of the disease: and where is the *cordon* to be drawn?

The poor widow who sat up last night has gone charring at a villa or house in the neighbourhood, where young children will be exposed to the danger; another has gone home to her little ones, who had to be sent to school, and in the school they become centres of infection, from which it radiates in all directions.

This may be said to be an imaginary danger. Would that it were so! We have had painful experience of the truth and reality of the danger—a family of three young children swept away in one case by fever conveyed in the clothing of a charwoman; another afflicted by the chance visit of the daughter of an old and affectionate servant; a third caught from visiting a poor person in one of these over-crowded houses.

These difficulties appeared sufficient of themselves; but the *Times* of Monday last records a case in which the

enforcement of the compulsory attendance clauses has inflicted a great injury, and if such cases frequently occur, would make the difficulties insuperable. A poor widow was summoned for not having sent her child to school: she pleaded that one of her children, having been removed to the hospital, suffering from scarlet fever, she had kept the others at home. Not being provided with a certificate of the fact, she was sentenced to pay a fine of three shillings, and in default committed to prison.

The doctor has since certified to the truth of the poor woman's statement; the child was removed by his order to the Stockwell Fever Hospital. But what right has any authority to exact such a certificate without paying for it? We have heard of a number of instances similar to this, where a summons has not been issued; and if the poor are to be thus punished for exercising caution, the neglect of which should be penal, the difficulties and dangers of large schools will be so multiplied that their maintenance will be intolerable. In a case that lately came under our notice, the medical officer of health, in despair, endeavoured to teach the schoolmaster to look for certain symptoms; but, after a little effort, that official naturally said the matter was too technical for him.

DR. CAMERON, Professor of Hygiene in the College of Surgeons in Ireland, has in the press a "Manual of Hygiene and Compendium of the Sanitary Laws." This work will contain nearly 400 pages, and embrace chapters on sanitary legislation, duties of sanitary authorities, medical officers of health, and inspectors of nuisances, nature and definitions of sanitary nuisances, sources and quality of waters, and all the cognate subjects.

## Correspondence.

### HOMŒOPATHY AND THE MEDICAL PROFESSION.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—“Hard words break no bones;” nevertheless, I am one of those who deplore the unfortunate condition of things which causes professional brethren to spend much of the time and energy which should be devoted to the cure of disease to the infliction of mental wounds one on another.

Can any good come of these criminations and recriminations? While doctors fight patients must suffer.

I would not trespass on your time and space were it not that you ask one or two questions which demand a courteous answer.

You say, “We want to know on what principle a disciple of Hahnemann who professes to believe that a billionth of a grain is necessarily and intrinsically the proper dose feels himself justified in prescribing ten grains, which he *must* believe to be a highly injurious quantity?”

To this the answer is very simple. No physician believing in infinitesimal or a small dose to be the *proper dose* could give a larger dose without grave immorality. But you give no proof that any physician has done so; and I doubt the fact.

If, however, you mean to say that a physician who would treat a case of pneumonia or of pleurisy with minute doses phosphorus or of bryonia must never give a teaspoonful of castor-oil or a dose of Friedrichshaller water to remove an accumulation of fecal matter from the intestines, I fail to see the right-sidedness of the argument.

The same moral obligation which forces a physician to treat certain cases of disease with infinitesimal doses may force him to treat other conditions (which his experience makes him believe to be better treated with larger or material doses) with grains or drops.

To do otherwise would prove him to be an unprincipled sectarian.

It is because the power for cure of infinitesimal agents has been ignored by the majority of the profession that the minority, who have a belief in this power, founded on careful experiment, have been called Homœopaths. But no such physician can, in honour, go further than his experience or his observation of the experience of others leads him.

You next ask, “And we also want to know whether homœopaths who avail themselves of the option,” &c. &c., “do tell their patients, when they choose to prescribe full

doses, that in their particular case they have no faith in billionths, and mean to give full doses?"

■ To this the answer is also simple. The habit is usual in such cases to give the patient a prescription, to be taken to an ordinary chemist, and where such a course is taken the reason is usually explained. In any case, no concealment is attempted; nor would it be possible, as is plain to the simplest understanding, seeing that infinitesimals have no taste, whereas all gross doses of medicines have taste, and most of them have both smell and taste.

These cases are extremely rare in the practice of the physician who has carefully and practically studied the homoeopathic materia medica; but where they do occur, no man truly deserving the name of a physician would for a moment hesitate to do his clear duty to his patient. Were he to be swayed by the taunts of the ignorant, or by any desire to please his patient by other arts than those of cure, he would deserve all that you say of him, and would at the same time act in direct disobedience to the first article in Hahnemann's "Organon," which it would be well to impress on all physicians, viz.—"The physician's high and only mission is to restore the sick to health—to cure, as it is termed."

Were physicians to study the power of infinitesimal agents to cause disease, of which it is possible to give many well-known examples, they would be less ready to deny the curative power of agents of like atomic division; but it is not my intention to enter on this subject in my present letter.

Yours very sincerely,

WILLIAM BAYES, M.D.

58 Brook Street, W., Nov. 5, 1874.

## Medical News.

**Coroner for Central Middlesex.**—The writ for the election of coroner in the room of the late Dr. Lankester has been received by the Sheriff of Middlesex. As the election must take place within fourteen days, the nomination will probably take place on Tuesday next. The constituents are freeholders resident in the district, whether registered or not, having property in any part of the county. There are three medical candidates, Dr. Hardwicke (for twelve years deputy to Dr. Lankester), Mr. Mortimer Granville, and Mr. Diplock; and two lawyers, Mr. Langham and Mr. Boulton.

## NOTICES TO CORRESPONDENTS.

■ CORRESPONDENTS requiring a reply in this column are particularly requested to make use of a *distinctive signature or initials*, and avoid the practice of signing themselves "Reader," "Subscriber," "Old Subscriber," &c. Much confusion will be spared by attention to this rule.

MR. HILDEBRAND RAMSDEN is thanked.

**ROYAL COLLEGE OF PHYSICIANS OF LONDON.**—By a printer's error only a portion of the Pass-lists of October 29th furnished to us was inserted in our last. The following names of gentlemen (to whom we apologise) should have appeared in continuation of the other lists—October 29th, admitted as Licentiates of the College:—

Alderton, Thomas Gunton, West London Hospital, W.  
Andrews, Samuel, New Southgate, N.  
Byrne, John Joseph, Cheetham, Manchester.  
Edwards, Octavius, Chaxhill Lawn, Gloucester.  
Forty, Daniel Herbert, Guy's Hospital, S.E.  
Hall, Frank Algernon, St. Bartholomew's Hospital, E.C.  
Jalland, Robert, Horncastle.  
Lamb, William Henry, Guy's Hospital, S.E.  
Payne, Henry Peter, Bournemouth.  
Roeckel, Waldemar Joseph, Royal United Hospital, Bath.  
Stephens, Augustus E. R., General Hospital, Cheltenham.  
Tyson, William Joseph, Guy's Hospital, S.E.

The following candidate, having passed in Medicine and Midwifery, will receive the College Licence on his obtaining a qualification in Surgery recognised by this College:—

Hobson, John Morrison, 12 Wynell Road, S.E.

**AN UNNOTICED SOCIAL EVIL.**—A correspondent sends us a letter clipped from one of our leading daily papers with the above heading. He justly expresses his abhorrence that such an indecency should have been admitted into the columns of a paper which has an extensive

family circulation. Our correspondent wrote a mild protest to the editor of the paper in question, but no notice whatever was taken of his letter. We have not space to reproduce the whole of the letter complained of; but if the upholders of "women doctors" seek to enforce their views upon the public in so objectionable a manner, such disgusting effusions cannot but offend those they strive to convert. The following extract will convey a pretty correct idea of the whole:—"We have no hope of the perpetrators of the revolting indecencies and monstrous wrongs of man midwifery. To all who know the vile system, their motives of gain and the gratification of base, carnal impulses are apparent. Reformation can never begin with them, for 'by this craft they have their wealth,' and with that the indulgence of the lust of touch first, and then of that of the eyes. Reformation would most gracefully begin and rapidly prosper if a few ladies of high position would adopt the bold, the true, the Christian course of breaking the trammels of an unholy and polluting modern fashion, by having, and letting it be known, that they had no man midwife to contaminate by his presence their chamber in their hour of trial. But if this may not be, all that is requisite to the utter extirpation of this evil, to the destruction of this moral upas, which has sprung out of, and thriven from the rankness and corruption of modern civilisation, is that the husbands and intending husbands of our time should make themselves acquainted with its nature. Let men but know how tarnished their wives will be if subjected to a treatment which outrages the moral sense and shocks all modesty and decency, and they will, I am sure, take prompt steps to save them from the ruin."

**CHEAP CHARITY.**—Our attention has been called to a printed bill (somewhat resembling the document in which your coal merchant "returns thanks for past favours and hopes to receive the honour of your esteemed orders") in which a Mr. Buller, of the London College of Surgeons, announces that he is open to bidders for his advice at Brent. "In order to show his consideration for the poorer classes," this benevolent gentleman will give his advice for the small charge of 1s. 6d. There is something in such self-sacrifice too divine for the mundane mind, and we confess that, at first sight, we were disposed to imagine that the 1s. 6d. was a very adequate and perhaps much longed-for honorarium.

We have received for publication several announcements of the appointment of Consulting Sanitary Officers under the Public Health (Ireland) Act. As a general rule, the workhouse medical officers throughout Ireland have been elected to the office in their union; but we shall eventually publish a complete list.

**LUNATIC.**—Previous personal experience in the treatment and management of lunatics in an asylum has not hitherto been considered essential qualifications for the appointment of resident medical superintendent, but the tendency appears just now to be to promote assistant-residents when possible, and we heartily approve of such principle. The appointment rests with the Lord-Lieutenant, and "outside influence" has always been the most potent factor in the selection.

**DR. ROSS, Monaghan.**—A description of the best form of disinfecting chambers will be found in the second edition of Mapother's "Lectures on Public Health." The apparatus is, however, expensive and very troublesome in the working. A much cheaper and nearly equally efficient apparatus may be had from an iron-founder, named Fraser, Commercial Road, London, respecting which we hope to have information next week.

## FEES FOR EMIGRATION CERTIFICATES.

To the Editor of the MEDICAL PRESS AND CIRCULAR.

DEAR SIR,—Permit me to suggest to my country brethren the propriety of charging for the above. No class could better afford to give £5 or £10 than our present class of emigrants. The Medical Association might perhaps lay down an uniform standard.

## A COUNTRY PRACTITIONER.

MR. HENRY MURRAY.—We believe the appointment has already been made, but we have forwarded your letter to the proper quarter.

**WATER-TESTING APPARATUS.**—About four months since a short article appeared in our columns upon a simple method of detecting impurities in water without the aid of much scientific knowledge or previous experience on the subject. Several correspondents during the past few weeks have written to ask us where the apparatus can be obtained. We beg, therefore, to answer them collectively by giving the address of the manufacturers at 157 Strand, London. But the same, we believe, is sold by agents in most large towns. The prices are half-a-guinea and a guinea each.

We are asked by Messrs. Ingram and Co., agents in this country for the Friedrichshall and other mineral waters, to state that communications only will receive attention which are sent to their new address, at 219 and 220 Upper Thames Street, E.C., as their late house at Bucklersbury is closed for City improvements.

OUR INDIAN CORRESPONDENT'S last communication came to hand as we were going to press; it shall appear in our next.

COMMUNICATIONS, Enclosures, &c., have been received from—Dr. Aveling, London. Dr. Van der Smaght, Ceylon. Dr. Hughlings Jackson. Dr. Handzel Griffiths, Dublin. Dr. Hime, Sheffield. Dr. E. Williams, Colchester. Dr. Monckton, Hurstpierpoint. Mr. Giles, Clifton. Dr. Campbell Black, Glasgow. Mr. Blackett, Society for Medical Relief. Mr. Ramsden, London. Dr. Greene, Peckham. Mr. Squire, London. Dr. Douglas, Wymondham. Dr. Boyd Mushet, New Brighton. Mr. H. Moore, Darwen. Mr. W. Berry, Wigan. Dr. Bayes, London. Mr. Southall, Birmingham. Mr. Tallerman, London. Dr. Warner, East London Hospital. Mr. H. Murray, Porteaon. Dr. Boyce, Foxrock. Dr. Kidd, Rathvilly. Dr. Hadden, Wexford. Dr. Kennedy, Tipperary. Dr. Hogan, Ballyvaughan. Dr. Hayes, Naas. Dr. Diamond, Rasharkin. Dr. Stewart, Glaslough. Dr. May, Kilmaganny. Dr. Latham, Ballymoney. Dr. Martin, Blackwatertown. Dr. Hodges, Belfast. Dr. Mahoney, Clonmel. Dr. Brodie, Limerick. Dr. Nevill, Dungannon. Dr. Bales, Kingstown. Dr. Jamieson, Aghnacloy. Dr. French, Glason. Dr. Kiteoon, Nenagh. Dr. Kinkad, Tuam. Dr. Jones, Cork. Dr. Myles, Colehill. Dr. Pollock, Dundalk. Dr. Rountree, Ballincolly. Dr. Hart, Innishofin. Dr. Maguire, Chapelizod. Dr. Parke, Derrygonnelly. Dr. Kidd, Dublin. Sir William Wilde, Dublin. Mr. Mills, Bourne.

#### BOOKS, PAMPHLETS, AND MEDICAL JOURNALS RECEIVED.

Report of the Army Medical Department for 1873.  
Outlines of the Science and Practice of Medicine. By W. Aitken, M.D., F.R.S. London: Griffin and Co.  
On Oxidation in the Human Female. By J. H. Aveling, M.D.  
Transactions of the Clinical Society of London.  
Royal London Ophthalmic Hospital Reports.  
Winter and Spring on the Shores of the Mediterranean. By J. H. Bennett, M.D. London: J. and A. Churchill.  
An Address in Medicine. By J. Russell Reynolds, M.D. London: J. and A. Churchill.  
Pharmacographia: a History of the Principal Drugs of Vegetable Origin. By Messrs. Flückiger and Hanbury. London: Macmillan and Co.  
On Strain and Over-Action of the Heart. By J. M. Da Costa, M.D., Washington Smithsonian Institution.  
The Elements of Psychology of Cognition. By R. Jardine, B.D. London: Macmillan and Co.  
The Medical Temperance Journal. Hardwick's Science Gossip. Monthly Microscopical Journal. The Spectator. Pharmaceutical Journal. Boston Medical Journal. The Clinic. Nature. Guy's Hospital Gazette. Courier Medical. The Students' Journal. The Psychological and Medico-legal Journal. The Practitioner. The Obstetrical Journal. British Journal of Dental Science.

#### VACANCIES.

Trinity College, Dublin. Professorship of Chemistry in the School of Physic. Fixed salary, £400 per annum, with other emoluments. (See Advt.)  
East London Hospital for Children, Ratcliff Cross. Resident Medical Officer. Salary, £80, with board, lodgings, &c. Apply for full information to the Secretary. (See Advt.)

#### APPOINTMENTS.

BARK, E. O., L.R.C.P.L., M.R.C.S.E., Resident Medical Officer of the City of London Hospital for Diseases of the Chest, Victoria Park.  
BAXTER, E. B., M.D., Assistant Physician to King's College Hospital.  
COLLES, A. J., F.R.C.S.I., M.B., Medical Officer to the Workhouse and No. 3 District of the Bridgnorth Union, Salop.  
CURNOW, J., M.D., M.R.C.P., Assistant Physician to King's College Hospital.  
DONOVAN, D., jun., M.D., Superintendent Medical Officer of Health for the Skibbereen Rural Sanitary District.  
FALVEY, F. J., L.R.C.P.Ed., Superintendent Medical Officer of Health for the Tralee Urban Sanitary District.  
FENTON, W. F., L.R.C.P.Ed., Superintendent Medical Officer of Health for the Clonheen Rural Sanitary District.  
FINLAY, D. W., M.D., C.M., Resident Obstetric Assistant at the Middlesex Hospital.  
FLEMING, H., M.D., Superintendent Medical Officer of Health for the Omagh Rural Sanitary District.  
GREENE, M., M.D., Sanitary Officer for the Ennis Urban Sanitary District.  
GRIFFIN, L. T., Ext. L.R.C.P.L., Superintendent Medical Officer of Health for the Killarney Rural Sanitary District.  
HORNIBROOKE, W. B., M.D., Superintendent Medical Officer of Health for the Kinsale Rural Sanitary District.  
JEFFERSON, J., L.R.C.P.Ed., Superintendent Medical Officer of Health for the Lisburn Urban Sanitary District.  
LENDON, E. H., M.B., Resident Physician's Assistant at the Middlesex Hospital.  
LYSTER, P. T., L.K.Q.C.P.I., Superintendent Medical Officer of Health for the Athlone Urban Sanitary District.  
M'IVER, J., M.R.C.S.E., Superintendent Medical Officer of Health for the Ardee Rural Sanitary District.  
M'MANUS, G., L.R.C.P.Ed., Superintendent Medical Officer of Health for the Trim Rural Sanitary District.  
MASSEY, D. C., L.R.C.P.Ed., Superintendent Medical Officer of Health for the Tubercular Rural Sanitary District.  
MOLONY, J., L.R.C.P.Ed., Superintendent Medical Officer of Health for the Ennis Urban Sanitary District.  
MOLONY, J., L.K.Q.C.P.I., Superintendent Medical Officer of Health for the Tulla Rural Sanitary District.  
MOORHEAD, M. J., M.D., Superintendent Medical Officer of Health for the Tullamore Rural Sanitary District.  
MORRISSEY, T. J., M.D., Superintendent Medical Officer of Health for the Tipperary Rural Sanitary District.  
MUNRO, A. C., M.B., Assistant Medical Officer to the Southern Counties Asylum, Dumfries.

for the Tuam Rural Sanitary District.

#### Marriages.

FLOOD—MUIR.—On the 29th ult., at St. John's, Greenock, Alexander Wm. Flood, L.K.Q.C.P.I., R.N., to Jessie Macleod Muir, daughter of Richard Muir, Esq.  
MANN—SHARMAN.—On the 4th inst., at St. Paul's, New Wandsworth, Horace, youngest son of the late George Smith Mann, F.R.C.S., Deputy Inspector-General of Hospitals, Bengal Army, to Adamina Lucy, youngest daughter of Henry Sharmar, of Park Road, Wandsworth Common.  
WILSON—BUCHANAN.—On the 4th inst., at 2 Sandford Place, Glasgow, J. G. Wilson, M.D., F.R.S.E., Glasgow, to Edith Gray, youngest daughter of the Rev. Robert Buchanan, D.D., Glasgow.

#### Deaths.

ANDERSON.—On the 2nd November, at Chiswick, Thos. Anderson, M.D., late Professor of Chemistry in the University of Glasgow, aged 55.  
KYNSEY.—On the 28th October, at Athy, co. Kildare, T. Brett Kynsey, M.D., aged 74.  
M'EVERS.—On the 2nd November, at his temporary residence, Rushbrook, John Francis M'Ever, M.D., of Cork.  
FULLAR.—On the 30th October, Wm. Y. Fullar, L.R.C.S.Ed., of Widness, Lancashire.  
WEST.—On the 1st November, at Cloone, co. Leitrim, Geo. B. West, L.R.C.P.Ed., Staff Surgeon Army.

**EAST LONDON HOSPITAL FOR CHILDREN, and DISPENSARY for WOMEN, Ratcliff Cross, E.**—The office of RESIDENT MEDICAL OFFICER to this Charity is now vacant, and applications are invited for the post. The candidate must be unmarried and a fully-qualified practitioner in Medicine and Surgery. There are 36 beds in the Hospital, and an average attendance of from 100 to 120 out-patients daily. The salary is £60 per annum, with board, lodging, and washing.

Application to be sent to the Secretary at the Hospital on or before Thursday, the 19th inst., at 12 o'clock, who will supply a copy of the rules and any other information required.

ASHTON WARNER, Secretary.

#### TRINITY COLLEGE, DUBLIN.—SCHOOL of PHYSIC IN IRELAND.

Pursuant to the provisions of the School of Physic Act, 40 Geo. III., ch. 84, and Amendment Act, 30 Victoria, ch. 9: Notice is hereby given that the Professorship of Chemistry in the School of Physic became vacant on the 3rd of OCTOBER, 1874; and that on SATURDAY, the 30th JANUARY, 1875, the Provost and Senior Fellows of Trinity College will, at the hour of twelve of the clock (noon), in the Board-room of the said College, proceed to elect a Professor of Chemistry, in the room of Professor James Apjohn, resigned.

The Emoluments and advantages of the Professorship consist of the following items:—

- 1st. A fixed salary of £400 per annum.
- 2nd. An additional payment of £100 per annum, on condition that the Professor shall give free Laboratory instruction to such Senior Sophisters as shall be nominated by the Bursar.
- 3rd. Fees for Lectures and Laboratory Instruction, to be regulated from time to time by the Provost and Senior Fellows.

N. B.—The fees as at present arranged are—  
Medical Lectures (Winter Course) . . . £3 3 0  
Medical Practical Course (Summer) . . . £5 5 0  
Laboratory Course (eight months) . . . £10 10 0

Graduates in Arts, and Students whose names are on the College books, are admitted to the Medical Courses on payment of half the above fees.

4th. The Professor shall have the use of the College Laboratory for analyses bearing on Medical Chemistry, and approved by the Provost and Senior Fellows, such as Medical and Medico-legal investigations, and analyses connected with purposes of Public Health.

All Candidates are required to send their names, with the places of their education, the Universities where they have taken their Medical Degrees, and the places where they have practised, to the Registrar of Trinity College, Dublin, and the Registrar of the King and Queen's College of Physicians in Ireland, on or before Saturday, the 23rd January, 1875.

Candidates wishing for further information are requested to communicate with the Rev. Dr. HAVONTON, Medical Registrar, Trinity College Dublin.

ANDREW S. HART, Registrar, T.C.D.  
J. MAGEE FINNY, Registrar, K. & Q.C.P.

doses, that in their particular case they have no faith in billionths, and mean to give full doses?"

To this the answer is also simple. The habit is usual in such cases to give the patient a prescription, to be taken to an ordinary chemist, and where such a course is taken the reason is usually explained. In any case, no concealment is attempted; nor would it be possible, as is plain to the simplest understanding, seeing that infinitesimals have no taste, whereas all gross doses of medicines have taste, and most of them have both smell and taste.

These cases are extremely rare in the practice of the physician who has carefully and practically studied the homoeopathic materia medica; but where they do occur, no man truly deserving the name of a physician would for a moment

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The Examination for Scholarships and Exhibitions on December 22nd and 23rd.

**DISTRICT LUNATIC ASYLUMS, IRELAND.**—The Office of RESIDENT MEDICAL SUPERINTENDENT of the District Lunatic Asylum at Castlebar being now vacant by the transfer of the Resident Medical Superintendent of that Institution to the Ennisceorthy District Lunatic Asylum, candidates for that office are requested to forward their testimonials, with a statement of their peculiar qualifications for the appointment, to the Under-Secretary, Dublin Castle, on or before the 21st NOVEMBER next, in order that the same may be submitted to His Grace the Lord Lieutenant.

Applicants must be duly qualified to practise both in Medicine and Surgery, and registered as such under the Medical Act of 1853. Candidates over 40 years of age are ineligible.

The Candidate who may be selected for the Office in question will have to enter upon his duties forthwith.

Dublin Castle, 31st October, 1874.

## THE STEWART INSTITUTION FOR IMBECILES, AND LUNATIC ASYLUM, LUCAN.

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Annual number of Dispensary patients	...	...	...	...
Number of visits paid by such patients	...	...	...	5,847
Number of patients within the Infirmary	...	...	...	124
Number of operations performed	...	...	...	163
Total gross expenditure per bed per annum	...	...	£27	15 0
Average expenditure per intern patient	...	...	1	10 6

The Infirmary is wholly dependent on private benefactions, and is in debt to the Medical Officer. SUBSCRIPTIONS ARE EARNESTLY REQUESTED

Established 1848.

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Z 53. LONDON SUBURBS, N.W. A SMALL PRACTICE, which could be made the basis of a very large connection, is offered for sale, in consequence of the ill-health of the Vendor. The receipts average £250 a year. Midwifery fees, one, two, and three guineas. The house contains ten rooms, with large garden. Rent, fifty guineas. The neighbourhood is improving, and there is great scope for an active practitioner.

Z 52. WEST OF ENGLAND. In a pleasant, well-populated district, near the South Coast, AN EASILY-WORKED PRACTICE, yielding £400 a year. No qualified opposition within four miles. All expenses are very low. The house is large, with garden, stabling, &c. Rent, £20. The vendor retires in consequence of an accident.

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# The Medical Press & Circular.

"SALUS POPULI SUPREMA LEX."

WEDNESDAY, NOVEMBER 18, 1874.

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## Original Communications.

### THE CURE OF BENT KNEE AND THE IMMEDIATE TREATMENT OF CONTRACTED JOINTS.

By J. MORGAN, M.D., F.R.C.S.I.,

Surgeon to Mercer's Hospital, Professor of Surgical and Descriptive Anatomy to the Royal College of Surgeons, &c.

AMONGST the consequences of injury or disease there are few more distressing than the various deformities of joints, specially where they are of so great an extent as to render the limb of which they form part, not only useless, but absolutely inconvenient. They concern equally the practitioner and the patient: on the one hand, the surgeon who has treated the case and brought it through a severe and protracted ailment, finds that his best efforts have left but imperfect results, and that the limb, except for its freedom from pain and irritation, is not of much more use than during the actively diseased state, while on the other hand, the patient, after that a deal of suffering and risk has been submitted to, finds the joint which caused so much anxiety and distress, is but an incubus, and the limb but a useless appendage, to be so carried about for a lifetime.

Various methods have been applied for their cure. The plan of gradual extension by means of instruments steadily applied, with or without division of the tendon, is familiar, and it is asserted that by the steady and long-continued action of such mechanism, deformities can be overcome. Various have been the means adopted, some so complex and expensive as to be beyond the reach of any but the affluent, and others so tedious and difficult in their action that the disappointed patient gives them up. It is to be remembered also, that the method is applicable chiefly to cases of but recent, and more or less delicate deformities.

On the other hand, forcible extension by instrument or otherwise has been advocated by Dieffenbach and others, where by violent and more or less rapid extension, the

adhesions may be broken down by force, without resorting even to powerful apparatus such as those of Louvrier's, whereby fractures and lacerations were not unfrequently caused. By the application, however, of force necessary to accomplish these ends, such injuries to the nerves and vessels of the limb may result as might cause its death; cicatrices around might be reopened and other accidents occur which the application of mere force might entail. Any one practically acquainted with the difficulty of the construction and application of instruments, and the tediousness of their results, must admit that, could an effectual and ready method be attained of remedying the deformity of a stiff joint which would be comparatively free from danger, incalculable benefit would be conferred on a large class of sufferers, and on many whose daily bread depends on their own exertions and capability. The question stands thus, in fact—

Can a patient who has not walked for years (even as I record, for so long as eleven years) be restored to such a condition as to walk well, and for hours, without a stick or support of any kind, and that, in a few weeks after dealing with the condition of joint?

I believe it can be done safely, quickly, and satisfactorily, by the method of forcible extension, as exemplified in instances I am about detailing.

No doubt, at first sight, the idea seems serious of meddling with a joint which has for long been a "thorn in the flesh" of the patient, months or years even, of where early life may have been spent in contending with the results, tedious and painful as they are, of joint disease, a natural hesitation arises as to reawakening a mischief from which the sufferer has but barely escaped with life, and avoided amputation or excision. It is not to be wondered that differences of opinion should exist as to the question of interference in such cases. Mr. Broadhurst thus expresses his views, in advocating the application of direct extension: "Any tendons which are rigid should be divided; the limb is to be fixed so firmly that all motion is prevented, except that which the operator is about to impart to the limb; the adhesions are then to be instantaneously ruptured." Mr. Tamplin in his lectures, *contra*, remarks: "If you rupture the



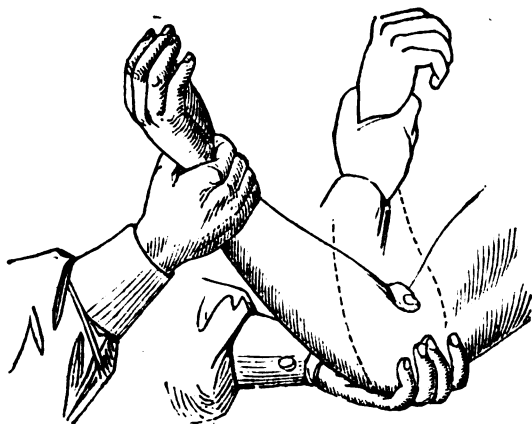
adhesions, the probability is you will not improve the condition of the patient." Such statements are no doubt difficult to reconcile on any other grounds than that the remarks were not applied to the same cases or to the same class of cases, or where similar treatment was used, and that a much more intense and marked condition had existed than that usually found. I can, indeed, well conceive that a case requiring such powerful machinery as thus described, would not be at all events the one that would be most eligible to treatment. "A padded metal trough, firmly screwed on to a wooden frame, attached to the seat of a chair, receives the thigh, the leg rests within another, and the two cylinders are joined together at the popliteal region by a wheel and axle, furnished with strong catgut cords, and retained by a ratchet, and thus a power is exercised which will fracture the end of the femur itself, if by any accident true ankylosis should be substituted for fibrous adhesions."

The method of forcible extension which I have found successful has proved itself particularly so where a combination of tenotomy and forcible extension is used; (a) in some instances, however, the use of the tenotome may not be absolutely required: this will depend, for instance, on—

#### a. THE SIZE AND STRENGTH OF THE JOINT.

Obviously in a small joint, as for instance at the elbow, we may obtain much more results without division of the tendon, or of myotomy, than we could in the larger one of the knee. Such a joint as the elbow presents also advantages for grasping and for the adduction and abduction of the limb to break down any adhesions, as seen in the drawing, where the left hand is supposed to be placed between the elbow and a table, with the thumb pressed on the most painful point, and the right hand making the necessary motions of extension and of ad or ab-duction.

FIG. 1.



#### b. THE RESISTANCE THAT IS FOUND OUTSIDE THE JOINT CAPSULE (HOOD).

This will concern the hip and knee especially. It does not follow, as in the knee-joint, for instance, that a tendon is necessarily engaged; it may be one or other, or both the inner and outer hamstrings that will require division.

#### c. THE AGE OF THE PATIENT.

While we may, by brute force, and without much difficulty, tear or stretch the muscles of the young, owing to their small size, yet it is found practically that they bear this badly, they retract again directly, and less can be done in the young without tenotomy than in those more advanced in life.

(a) See Broadhurst, Barwell, Gross, &c. Croly, *MEDICAL PRESS*, 1872, p. 93.

#### d. THE ANGLE OF DEFORMITY.

The greater the arc that has to be described by the limb, the greater will be the advantage of "tenotomy" or "fasciotomy," if I may use the word as applying to contracted fascia or cicatricial tissues. In such cases, for instance, where the toes or half the foot rests on the ground, tenotomy will hardly be required, force alone sufficing; whereas in others, where the foot is ten or eleven inches from the ground, and the knee bent nearly to a right angle, tenotomy will be found advantageous, or even absolutely necessary. The instances where I have found the application of forced extension so successful are those of contracted joints, and of the knee notably most so; where previous inflammation had existed, and where suppuration even had ensued, or where the usual protracted suffering from "white swelling" and its consequences, confinement to bed, and a long drain on the system from suppuration has been experienced, and where the patient has recovered with a joint deformed to a greater or lesser degree. A certain amount of motion may be left, flexion may be possible, but not extension. The leg may be absolutely inconvenient from being in the way when sitting or lying, and must become daily more meagre and wasted from disuse and imperfect circulation.

The following very interesting case in the daughter of a gentleman in my own neighbourhood will afford an average and marked illustration of the class of case most suitable and most successful to deal with, at the same time being the most pitiable to leave unrelieved.

An unusually intelligent little girl, Miss E—, now aged ten years, suffered at the very early age of two years from the symptoms of white swelling of the knee-joint, which, after prolonged suffering and risk, left the joint contracted, and as shown in its angular position.

For nearly the last seven years, though various instruments were applied and tried from time to time, the limb has been useless, and for two years past she has absolutely used but one leg only, and consequently she was cut off from many of the joys and amusements of childhood, and suffered considerably in health from want of open-air exercise.

The child presented the following appearance and deformity:—

FIG. 2.



Case of Miss E., showing the position of the contracted knee on August 20, 1874.

On August 20, 1874, I put her under the influence of ether, and divided the tendon of the biceps with the tenotome from behind forwards, using caution to avoid the nerve, and then covered over the wound with plaster I made forcible extension, with the aid of an assistant



making traction at the leg, while I grasped steadily and forcibly the knee-joint all around, making even and tolerably powerful extension at the same time, the adhesions within the joint were felt distinctly to give way, and the limb was at once straightened. It was then laid in a splint well padded and prepared with an extending screw. Everything was made comfortable, the knee wrapped in wadding, and bandaging was methodically applied from the foot upwards. An opiate was given in the evening, and the child kept her bed for about two weeks, and during this period she had not a troublesome symptom of any kind. She was out walking and playing about, and even took a long walk within a month, of nearly half way round Howth within two months after the extension of a limb which had not been used for so many years. She uses no stick of any kind, but simply

FIG. 3.



Case of Miss E., showing the perfect position of the limb on October 5, 1874, after extension.

a band across the patella attached to lateral iron rods, and she can go up or down stairs two steps at a time. As may be expected, nothing can exceed the gratification of both the parents and the child at the comfort obtained and the ease with which she walks, a very slight halt being alone perceptible. The appearance represented in the illustration was drawn by Mr. Oldham in the first week of October, and shows the straightness of the limb, in remarkable contrast to the deformed condition of August 20th.

Having given the general details of this case, it will serve as a guide for the application of the combined treatment of tenotomy and forcible extension.

The point which presents itself for consideration is—What would influence us in interfering with such a joint with a hope of obtaining a good result?—a question indeed of no inconsiderable gravity.

In this case no sequestra had ever escaped from the joint. There was no evidence either of there having been at any stage of the disease an abnormal lateral or unnatural movement of the joint, and it had always retained the hinge or ginglymoid movements.

On examination it was found that the extremities of the bones were not knit together; a certain amount of flexion remained and also extension till "pulled up" by the offending tendon and adhesions, all arguing that bony ankylosis had not occurred.

The patient was able to bear her weight fully on the limb when put in the position for doing so.

The disease originated apparently in an injury, and ran a rather acute course in the beginning, all auguring that limited adhesions only had formed inside the joint.

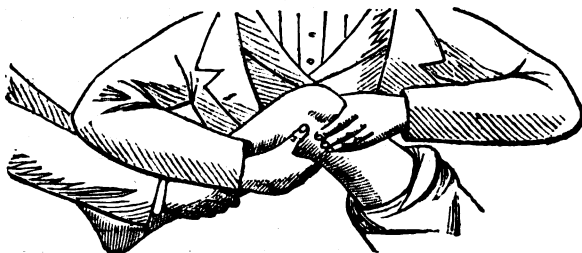
Of course, the longer the deformity existed the more

firm would be adhesions, while the angle of flexure would be constantly diminishing, and I need hardly add that the suffering from want of air and exercise, and the limitation of enjoyments and of prospects, were also important considerations in determining on making an effort to relieve the joint. Had the deformity been merely one allowing of locomotion, there might have been some hesitation, but it required an extraordinary effort and position even to touch the foot to the ground. As Mr. Barwell puts it, "The use of considerable force is justifiable for the reduction of a malposture of the knee-joint, but unjustifiable in the re-establishment of mobility in a joint already in good position." Many are timid about interfering with such a joint, but it is to be remembered that the previous processes of inflammation and degeneration, as indicated often by the suppurative and long existing sinuses, have more or less destroyed the synovial structure; and just as an eye which has been the subject of disease bears interference so much better than a healthy one, so an abnormal joint, where immediate inflammatory action has passed off, will do likewise. A consideration of the steps I adopted in this case will best serve as a guide for the practice of this method of cure.

Ether was administered, because it is the safest, according to statistics; while the results are as good or better, as an American writer has unpleasantly put the case, that a practitioner should be punished if his patient should die under ether, as he can prevent it—whereas with chloroform, accidental deaths, or deaths from idiosyncrasy so-called, or in other words, inexplicable deaths will occur, and do occur pretty frequently.

Tenotomy was used with the sharp-pointed tenotome cutting towards the skin, but it may be done equally with a blunt-pointed one after a preliminary incision has been made at some distance in the skin. Marked alteration in the extensibility of the joint immediately ensued; I at once closed the wound over with plaster, and proceeded with the extension. The external wound being so small, and the tenotomy being made subcutaneously at a distance from it, I can hardly estimate as a danger that air would, as has been surmised, be sucked in at that point; at all events I have never seen it, or any other inconvenience. Of course, in dividing the biceps tendon, care should be taken to avoid the nerve, which can be done by pushing in the point of the finger well, and separating the tendon and nerve, and keeping on the inner edge of the tendon. There is practically no danger where discretion is used. Some prefer making the tenotomy a few days before the application of extension, and then letting the external wound heal first, and Mr. Barwell mentions a case where the inner and outer hamstrings were both recently divided, and where, when extension was applied, the skin was split from one to the other; it is difficult to conceive this accident from so small an incision as that of a tenotome, but as it is recorded, its possibility should be borne in mind. Having closed the wound over, I got an assistant to lay hold of the leg and make steady traction, more by the dead weight of the body than absolutely by pulling. I grasped round the joint with my hands, keeping the fingers of one hand well in the popliteal space to support the head of the tibia, fearing

FIG. 4.

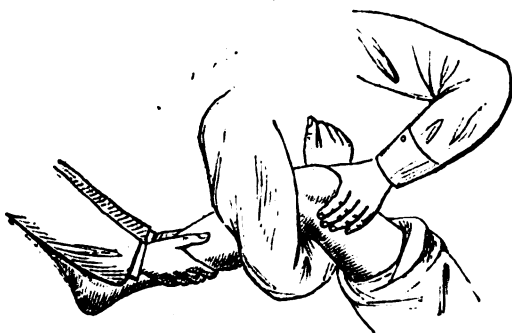


Mode of manipulation for the extension of Bent Knee.

it might possibly slip backwards. I myself assisted actively in the extension, and I felt plainly the "crack, crack" of the adhesions giving way, and in a minute or two the limb was straight. As it is important, I think, that the surgeon should pull forward on the back of the head of the tibia, I append an outline of the position of the hands *in situ*.

In other instances, where greater force is required, it is well even to put the forearm near the elbow, under the knee, and thus pull forward the head of the tibia, while powerful extension would be made, and so avoid the possibility of a dislocation.

Fig. 5.



Mode of using the arm in the extension of Bent Knee.

(To be continued.)

#### CASE OF CROUP.

Under the care of JOHN LEONARD KEALY, L.R.C.S.I.,  
L.R.C.P.E.

Medical Officer St. Peter's E. WarJ, Dispensary District Drogheda.

On the 2nd November my friend, Dr. George Delahoyde, of Drogheda, in my absence from town, saw for me a child, aged three years, whom he found on examination to be suffering from croup. He prescribed emetics, and at the same time ordered beef-tea and other appropriate nourishment. On the following morning I saw the case, and expressed my opinion that the little patient had very slender chances indeed of recovery. I ordered the nourishment to be continued, and increased the emetic dose, promising to interfere surgically if the remedies given would not have a beneficial effect. Strange to say, the mother offered no objection to the proposed operation, but, on the contrary, asked me to do anything that I thought might give my patient a chance. Dr. Clarke, of Drogheda, and his father, Dr. Clarke, of Armagh (who has retired from practice), kindly gave me their advice on the case, in consultation with Dr. Delahoyde. These gentlemen believed there were very slender hopes that anything I could do would save my patient, but agreed, as the little fellow was fast sinking, it would be good surgery to operate as a *dernier ressort*.

Accordingly, with the very able assistance of my friends, I performed the operation of tracheotomy in the usual way. Owing to the great dyspnoea and consequent venous engorgement, there was some hæmorrhage, which, however, by pressure and cold applications, was easily controlled. Most surgeons recommend at this stage of the operation to wait until the hæmorrhage has completely ceased before the trachea is opened; but Collis points out that there is no necessity to do this, as pressure with wet lint is, in the majority of cases, sufficient to prevent blood getting into the tracheal wound; besides, the length of time you might have to wait would render the operation futile. The usual incision having been made into the trachea, and the tube being properly secured, manifest relief was experienced by the patient. Stimulants were freely given, and we had hopes that our interference might save life.

However, after a short time, it became evident that our patient, though relieved for a time, would die from asphyxia, which occurred in less than one hour after the operation had been completed.

I beg to bring this case under notice for two reasons:—

1. To urge on practitioners, when croup has been once fairly established, to lose no time in operating, as it is my conviction, had I interfered earlier in the case I am relating, and not have trusted to the emetic plan of treatment, the result in all probability would have been far different from what it was. M. Bretonneau, of Tours (if I remember rightly), operated very easily in croup, and with extraordinary success.

2. That even very young surgeons should have no hesitation in using the knife in such cases, as, to one acquainted with the anatomy of the parts, tracheotomy presents no unusual difficulty. Magnifying the danger of operations is, in my opinion, much to be deprecated, as it tends to discourage younger hands from interference surgically when such interference is necessary.

#### SUCCESSFUL CASE OF LIGATURE OF CAROTID ARTERY.

By R. H. SUPPLE, M.B., &c.,  
Medical Officer Collon Dispensary.

I WAS attending Mary C—, aged about 23, for sore throat of a severe form, accompanied by great fœtor and deep ulceration. She did well up to the 21st September, when, on my visit at 11 a.m., I found her sister very much alarmed about her, as she had bled a good deal out of the mouth during the early part of the morning, but it had stopped as suddenly as it began. I made a careful examination of the throat, but could not detect where the hæmorrhage had come from. I told them, should it recur, to send for me immediately. I had scarcely got out of the room when her sister ran after me to say that she was dying. I returned without delay, and found the poor girl bleeding frightfully. I instantly looked down the throat, and saw that an ulcer had eaten through the coats of a large artery. I directly put a pencil of argenti nit. into it, and sent for perchl. ferri and other styptics, all of which I tried in vain—they merely lessened the hæmorrhage for a time; I also made digital pressure on the carotid. By these means I kept my patient alive until Dr. Kealy, of Drogheda, arrived, as I had sent for him to assist me to tie the carotid artery, as the only means of saving the girl's life. When Dr. Kealy saw the case he quite concurred with me about the propriety of the operation I had decided on. We got the bed our patient was in lifted to the window, as the room was dark, and she was too weak to move to another. I then made an incision about three inches long upon the anterior edge of the sterno-mastoid, and exposed the sheath of the vessels without much difficulty; some branches of the descendens noni nerve gave a good deal of trouble; the jugular vein was quite empty and was easily drawn to one side by the finger. I now easily passed an aneurism-needle armed with a strong silk ligature from without inwards round the artery, and, having tied it, cut off one end close to the vessel and left the other hanging out of the wound, which was closed by two sutures, and a pad of lint fastened by plaster completed the operation. There was not a drop of hæmorrhage from the moment the artery was tied, nor was there more than half-an-ounce of blood lost during the entire operation. The case progressed most favourably from this, the ligature came away in the dressings on the seventeenth day, and in a week more she was able to go away for change, as I thought it advisable, owing to her delicate state. She has just returned in excellent health.

I cannot conclude without expressing my gratitude to Dr. Kealy for the able assistance he rendered me in so difficult and trying an operation.

## INTRODUCTORY ADDRESS

DELIVERED IN THE

THEATRE OF THE RICHMOND HOSPITAL, DUBLIN.

By W. THOMSON, M.D., F.R.C.S.I.,

Surgeon to the Hospital.

Mr. Thompson, after a few opening remarks, said he had selected for his subject Medical Education, preliminary and professional, and in the course of his address said:—

The question of medical education has been somewhat prominently brought before us this year by the proceedings of the General Medical Council. This body, as you know, is constituted by Act of Parliament, and is composed of distinguished representatives of the different branches of the profession in the three kingdoms. With these lie the control and direction of the education of our students. Very recently they have sent commissioners to various examinations throughout the country, for the purpose of reporting upon their efficiency as tests of the candidates' technical knowledge. These gentlemen, I may say, have not reported favourably of very many. The judgments in some cases have been rather adverse, and it has been generally admitted that some changes were necessary. Yet I think I express a very wide-spread feeling when I say that, in the course of the discussion upon these reports, observations were made by certain members regarding Irish examinations which were tinged with an undeserved severity, while other bodies in England and Scotland, very distinguished for their deficiencies, had attention diverted from them almost totally. This is not the place to make more than a passing allusion to the Report of the Commissioners. The observations and suggestions submitted, however, will doubtless lead to changes which cannot fail to be of interest to you. What these will be it is not possible very definitely to say; but this much appears certain, that in the future, examinations will become increasingly practical, and that no mere book-knowledge will satisfy the court as to the pupil's proficiency. It will not be possible for a man to become a surgeon whose sole grasp of anatomy consists in his acquaintance with some handbook, or who can give eloquent descriptions of cases in the hall which he is utterly unable to recognise in the hospital. The practical spirit which exists round about us has also become diffused through our own profession, and it is right that I should warn you to adopt it, and to be prepared for its developments. Taking up my subject in its natural order, I wish to speak a very few sentences with regard to preliminary education. I do so with some diffidence; but whatever opinions I hold, they have been long forming, and are not the produce of any new-born zeal. It seems to me that a great mistake is too often committed in the insufficient preparatory training of our students. I do not blame parents for this; they are anxious to have their sons start early in life, and they naturally believe that in fulfilling the requirements of the law they have done all that is necessary. The body at fault appears to be the General Medical Council—not the Government, not the public, not any particular institution. The Council prescribes the examinations which every young student must pass in order to be duly registered. But it is not a little startling to know that it recognises some fifty different tests, all dissimilar in difficulty and extent, ranging from the most severe to the most simple. Nor are we reassured by examining the slender basis upon which the pupil is expected to rear a superstructure of knowledge involving the most intricate and subtle considerations. We have heard a great deal about conjoint schemes and the raising of the standard of professional examination. We are assured of the great advantages which the "single portal" mode of admission to the profession possesses, and under certain conditions I believe in them. But have not the Medical Council and the advocates of these changes commenced at the wrong end? Are they not falling into the error of demanding a uniformity of result

without trying to secure any uniformity of preparation? One other mistake lying at the root of this question is the early age at which the student may enter upon his work. If professional study were only to count from, say 17, or later, ample time would be afforded him to engage the mind in something more intellectually strengthening than that which forms the course of instruction in the great majority of schools. If he is able to take a full arts curriculum in a university, so much the better; but I believe that he should be at least required to undergo an examination equivalent to what is known as the "little-go," as a test of his educational status. Besides subjects which are obviously necessary, there should be a fair knowledge of a foreign modern language and of the literature of his own, of the elements of logic, with some of the higher mathematics, and experimental physics. I am quite aware that a great many of our students do possess knowledge much in advance of this, and, on the other hand, that those who have never gone through any such course pass high examinations in technical subjects. But what I wish to be understood as pressing is this, that he who had pursued it would prove a more appreciative student, and rational and probably successful physician or surgeon, than he who had contented himself with satisfying the test of the General Council. To my mind, it is a positive injury to the student to receive him on such terms: he is deprived—because he is as yet unable to exercise judgment in the matter—of the pleasures which are to be found in an acquaintance with general literature and philosophy; his mind has never undergone any of the strengthening discipline resulting from a practice of the simplest rules of logic; and before he has learned anything of the laws of thought, or been able to arrive at any mental breadth or depth, he is plunged into the midst of professional study. With great respect, I do not believe in the wisdom which makes such a thing possible. The requirements for admission should, if anything, be superior to those demanded for law or divinity, in neither of which, as a profession, is there the great variety of study or the multiplicity of subjects with which every medical man must make himself acquainted. But, independent of the utility of general culture for purposes of the profession itself, there is another consideration which would render it desirable. It is a well-founded observation that there is a tendency in devotion to any one particular line of study to force the mind into a narrow groove; it becomes impregnated with law or medicine as the case may be; and if it be not now and then watered with the gentle dews of "deep philosophy, wit, eloquence, and poesy," it will soon become like a desert, parched and unbeautiful. Moreover, I think there is in it for the student a safeguard which ought not to be neglected. Separated from home, without friends perhaps in the city to take any special interest in him, the student seeks relaxation for his wearied brain. For many it may be found in turning to lighter reading, and renewing the acquaintance with old familiar words; but some search for it in places which are certainly not conducive to increased knowledge of their profession. I am an advocate of recreation provided it be sensible and pure; but in a large city like this there are attractions which ought only to be known to be shunned, and which have brought to those who set out with fairest prospects misery and disaster. A recourse to literature is a pastime which would save them from a temptation to ignoble pursuits, and afford them much profit, serving to make wider and firmer the basis of their knowledge, and to raise their office to a higher dignity by their general intelligence and by the nobility of their conduct.

Mr. Thomson then proceeded to speak at some length upon professional education, impressing upon his hearers the need of a careful study of anatomy, physiology, histology, pathology, &c. He urged the importance of hospital work and of note-taking, and, while condemning the idlers, defended the class of medical students from the charges of people who were themselves little accustomed to disinterested self-sacrifice, and who were for the most

part content with a passive and frequently selfish existence.

After a brief sketch of the more important recent advances in surgery, he said: These are great achievements, but they are not by any means all, and in the future we may expect that enthusiasm, well directed, will lead to victories more brilliant still. The whole field of science is open wherein to exercise your highest faculties. It is true that at no period have the workers been so many; but do not fear that there is no room for your exertion. What has been discovered seems to be but upon the borderland. There is a vast unknown country beyond, full of buried truths, with crowds of eager explorers, crying, like Goethe, for "more light," ever pressing upon it. It may be that that truth of which you are in search lies deep down amid much grosser stuff, and will take much time and patience to bring to the light of day; or it may be but lightly covered, to be turned over by the foot of some heedless dreamer. But do not depend upon such chance discovery. They who have been most successful, who have done the greatest good, and have left behind an enduring name, are the men who, with sweat of brain as well as sweat of brow, have toiled through many years in unflinching hope of reaching the goal at last. Strive, therefore, resolutely but reverently, to widen still further the bounds of scientific knowledge. Endeavouring thus to stimulate you into real work, I may be permitted to remind you that, as students of the School of Dublin Surgery, you have much honour to maintain. We have had in this city men whose names will ever be associated with whatever of glory belongs to our profession—Crampton, Cusack, Porter, Colles; and in connection with this old Richmond Hospital—as renowned as venerable—Carmichael, Todd, Peile, McDowel, Hutton, and the illustrious teacher of many of us, Robert W. Smith; and one more—we have the distinguished Father of Surgery in this country—Robert Adams—of whom it is the highest praise to say that, recognising the magnitude and responsibility of his work, he has done and continues to do that work well and nobly. These and others whose names will occur to you have given us a heritage of fame which it is our duty jealously to guard. Let them be exemplars in ceaseless activity, in unflinching perseverance, and in fidelity to principle. As with them, disappointment and defeat will meet us often; but even from these we shall gain something if they help to nerve our falling hands and to give new vigour and determination to our effort. And when at last it shall come to you and me to cease from our labour, may we find some solace in the consciousness that "in hearts we leave behind" there will abide for us a tender memory of an useful life and an honourable name.

Mr. Thomson concluded amid loud applause.

The Chairman (Mr. John Hamilton) announced that the clinical prize had been awarded to Mr. Effingham McDowel.

## INDIAN MEDICAL NOTES.—No. XXIX.

(FROM OUR SPECIAL CORRESPONDENT.)

MEERUT, October, 1874.

### "PRACTICAL."

ONE dark oppressive night, or rather morning, in September, when the regular work here involved hourly life and death anxiety, the riding-horses, the servants, the natives, all sick, or hard pressed to carry on the current duties, the following note, received in bed, was startling, especially the address, from Sirdhana, 14 miles distant, the latter part of the road three weary, jolting, spring-breaking miles, over a partially ploughed field, along the bank of the canal:—

"Major — went out shooting at 5 a.m. to-day intending to return to lunch, but, interested, and getting good sport, went on without refreshment, excepting cold tea—soon expended; walked 24 miles, took off his helmet to stalk deer, got a slight sunstroke, and fainting, was

restored by means of cold water poured on his head by attendant; but again he became insensible, so remaining some time, finally managing to crawl back 4 miles, resting by the way, retching every few minutes, and in absolute agony with cramps, which seized feet, legs—every part of his body. He failed at the steps up to the house, and when I saw him, at 9 p.m., he was in cold perspiration and torture one moment, fainting away the next. He had been standing a good deal in water, and was wet up to the waist. I gave him brandy, and he got into bed, but brought back the brandy with a rush, and it has been all we can do to rub his legs, with hot bottles, and hold them, for he is in very great pain, violent spasms, his limbs twisting without control. Madly thirsty, he has drunk eight bottles of soda-water, bringing each up instantly. Cold water to his head, mustard applied over the stomach, the feet in mustard and hot water. His eyes are so oddly sunk; and some medicine given him by a native doctor was immediately vomited."

The remainder of the letter contained the usual alarm and cry for help, written by the patient's wife—graphically expressive—the apology for quotation here.

As usual, three courses were open—either to plead fever, to send the note to the civil surgeon, who attends waifs and strays, else, the message being so urgent, every moment of consequence, to go. The latter course adopted; and as the house is perfectly solitary, it was necessary to carry medicines, blisters, catheters, hypodermic syringe, essence of beef—a heap of things, including stimulants. So the pet grey flea-bitten Arab and dog-cart (a splendid bargain for £50, the property lately of a consumptive captain) had to be trotted out. That clever novel, "The True Reformer," opens at Sirdhana, where the Begum Somroo lived and built a church, besides endowing schools for the transformation of native children into French Roman Catholics. "The True Reformer" received a different note, conveying the news of inherited wealth, whilst pig-sticking in the district. Besides two tapering towers and a pleasant peal of bells, the church boasts of the Begum's tomb, a fantastic jumble of fairly executed figures in monumental marble, the old lady uppermost. When her disorganised troops were short of pay, they placed their commanding officer, denuded of his trousers, astride a heated gun. Amongst the squalid natives in the dirty bazaar has lived alone, for many years, an English lady, now grey-headed, with a painful history, better untold. The general effect of Sirdhana—harshly discordant—about as harmonious as a Hindoo temple and priests would be in a quiet peaceful village, such as Friern Barnet, where clever Dr. Anstie rests. At the present moment the sound of firing over a poor fellow's grave, a quiet simple Christian, recalls to mind the words "Blessed are the dead, for they rest from their labours."

The scorching sun glared maliciously down as the distressed over-driven little horse, covered with foam, panted through the substantial gates of the lodge, along the shady avenue, through the graceful sweet-smelling orange-groves leading to the Begum's palace, a fine-looking house, generally empty, occasionally occupied by convalescents, or some traveller favoured by Mr. Billings, who worthily represents the absent owner, the Hon. Mrs. Forrester.

The patient, very much better, had almost shaken off the attack. Aged 42; off and on in India since 1852; had endured fever, ague, rheumatism, dysentery, besides, in 1854, a mild attack of cholera, attributed to drinking ditch-water, so decided that all but one servant deserted, panic-stricken. Yesterday, when parched with thirst, he drank muddy water out of a dirty village well, possibly influencing the dyspnoea, impending suffocation, retention of urine, vertigo, cramps from feet to knees, the muscles standing out like ropes, the toes turned down, the great toe separate, the arms free; no epileptic history. A gallant, indeed, distinguished soldier, a great smoker, by no means the stamp of man to make much ado about nothing, his case, in my humble opinion,

would have been genuine cholera but for the previous attack. Mere assumption—opinions grounded on vague report though they be—I do not stand alone in the idea promulgated. Malarious Sirdhana contains the usual dirty ponds covered with green vegetation, varied by white, pink, or purple water-lilies, surrounded by banks of slimy mud. In 1866 all the old grain pits became full of water, when persons and animals feeding on the spoilt grain fatally sickened.

(To be continued.)

## Hospital Reports.

### METROPOLITAN FREE HOSPITAL.

(Cases under the care of Dr. CHARLES R. DRYSDALE.)

#### *Dysentery and Ipecacuanha.*

RICHARD LEEDHAM, 34, formerly in the Bombay army, contracted dysentery in Poonah in 1866. He was in hospital for two months with the disease, and was invalided to England in 1871 for this disease and liver disease. There is a scar at the edges of the ribs, at the level of 2nd, below xiphoid cartilage, through which blood and matter issued on board ship returning home. After getting to Netley the dysentery was cured, and he had no more attacks until four months back; but he has had it ever since then. Had perhaps a dozen stools in twenty-four hours, slightly tinged with blood, and often entirely composed of blood and slime.

March 17.—To take five-grain doses of powdered ipecacuanha four times a day.

March 31.—Returns to say he has only four motions a day, in the twenty-four hours; no blood; no straining; tongue white, furred. The medicine does not make him sick now; it did at first. He was soon quite well.

Isabella Jenkins, aged 54, has been a widow for eighteen years. In the year 1863 she had cholera, and was eight weeks in St. Mark's Hospital. She has since that time continually suffered in the abdomen. Had blood in the motions, and also matter. She came to the Metropolitan Hospital in April, 1874, complaining of great relaxation of the bowels. Five grains of ipecacuanha powder were prescribed, to be taken occasionally. The patient came on the 14th April and said she was very much better; she said she could not tell the comfort she had; was better the first powder she took. Motions are now regular—one a day. The last powder made her sick.

### CASHEL UNION HOSPITAL.

(Cases under the care of Dr. LAFFAN.)

By Dr. W. P. HOURIGAN,

Medical Officer Tullaroan Dispensary, formerly Dresser to the Hospital, and subsequently Resident Medical Officer to Mater Misericordiae Hospital.

#### *Fistula in the Neck.*

PATIENT a young man, æt. 28. The track extended from the clavicle between the sternal and clavicular origins of the right sterno-mastoid muscle to within a short distance of the mastoid process of the temporal bone, becoming deeper as it ascended. The affection had lasted for six years, and from the patient's own account appears to have had expended on its treatment most of the resources of legitimate and illegitimate art. Anatomical considerations suggested to Dr. Laffan the prudence of giving a trial to palliative measures, and these were accordingly tried for a period of more than two months, but without perceptible effect. Dr. Laffan then cut the lower half of the fistula open with the knife, and plugged it from the bottom with lint. He reserved the upper half for division by the galvanic cautery, as the safest course to be adopted. The part of the fistula which had been incised

healed up in a few weeks, and some delay having unexpectedly arisen in getting the galvanic apparatus ready, Dr. Laffan found to his great surprise, on examining the patient some weeks subsequently, that the incision already made had been sufficient to cure the entire fistula.

#### *Fistula in the Thigh.*

This happened in a boy, æt. 6. Had existed for some months, and extended from the apex to the base of Scarpa's triangle of the right thigh. Palliative treatment had in this case, as in the former instance, been given a trial, and with the same result. Dr. Laffan then cut open the fistula, and the consequence was equally satisfactory as in the former cases.

## Transactions of Societies.

### ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, OCTOBER 27TH.

Mr. TIMOTHY HOLMES in the Chair.

#### A CASE OF ABDOMINAL ANEURISM OF UNUSUAL SIZE.

By Dr. BAKWELL, of Trinidad.

The patient was a man 38 years old, who had been a soldier for fourteen years, serving part of the time in India, but for the last seven years had followed the occupation of a painter. He had had gonorrhoea and syphilis, but no other illness, and was not of particularly intemperate habits. Four or five months before being seen by Dr. Bakewell he suffered from severe pain in the back and loins, during a voyage from New Zealand; but this soon got better, returning, however, with increased severity on January 1st, 1874, and affecting also the left thigh and knee. When seen on April 24th, he was unable to flex the thigh upon the trunk, and on examination a swelling was found in the left loin, which formed a large smooth fluctuating tumour filling the left lumbar region, and felt also from the front. There was an entire absence of pulsation, and after another examination the diagnosis of lumbar abscess was considered clear. A month later the tumour was found to have undergone an enormous increase in size, and now occupied the whole left side of the abdominal cavity, which was bulged in front and behind; there was visible and expansile pulsation all over the tumour, and fluctuation could also be detected from the back as far forwards as the linea alba. A loud bruit was also audible all over the tumour. The diagnosis of aneurism was now evident, and the swelling rapidly increased; but some one having suggested that it might be a renal cyst, a trocar was inserted at the posterior part, and the canula, from which only blood issued, was left in with its orifice plugged. Three weeks afterwards the canula sloughed out, and the patient died two days later from exhaustion, the pulsation having considerably diminished. After death the left semi-circumference of the abdomen was found to be seven inches larger than the right, and there was a large slough over the posterior part of the tumour. The aneurism was found to occupy the whole left side of the abdominal cavity, from the diaphragm to the iliac fossa, the peritoneum was stretched over it, but not perforated, and the organs displaced and compressed. The interior of the wall of the sac was lined by an irregular layer of laminated fibrinous coagula, which in some parts was of considerable thickness; and the sac contained also a quantity of fluid blood and coagula. There was erosion of some of the upper lumbar and lower dorsal vertebrae. The sac of the aneurism communicated with the aorta by an oval orifice opposite the eleventh and twelfth dorsal vertebrae. The author stated that he had found no record of an aneurism of such size; he expressed his belief that the sac had in the first instance passed between the psoas magnus and quadratus lumborum muscles, and that to their pressure was due the absence of pulsation when first examined; that later, by the giving way of the psoas, the rapid increase occurred, and fluctuation, pulsation, &c., were developed. He considered the cause of the disease doubtful.

# A CASE OF RECOVERY AFTER REMOVAL OF A FOREIGN BODY IMPACTED IN THE FEMALE PELVIS FOR TWENTY MONTHS.

By Mr. BARWELL.

The patient was a young woman who, having reason to fear the occurrence of pregnancy, consulted an abortionist, who, it was supposed, attempted to introduce a gum-elastic catheter into the uterus. The patient, finding it slipping out whilst at the closet, had endeavoured to push it in farther, and it had then disappeared, much to the alarm of the abortion-monger. Two or three months later the patient complained of severe pain in the left hip, thigh, and leg, which was ascribed by the medical attendant to some deep-seated irritation. The pain, however, was relieved, and it was not till twelve months later that any further symptoms were complained of, when a large abscess formed over the left hip; and on inquiry being made, the patient related the history of the gum-elastic catheter. On examination, in addition to the abscess, there was found a sinus in front of the tuber ischii, through which a probe, when introduced, passed up by the side of the rectum, but did not enter the bowel or the abscess. By incision, a large quantity of feculent pus was evacuated from the abscess, but no foreign body found. A few days later, on making a careful examination per vaginam, a hard transverse ridge was found at the upper and posterior part of the vagina; and by rectal examination a corresponding ridge was discovered, and a part of it was found to be due to some foreign body lying in a pouch communicating with the rectum. By the aid of the finger and polypus forceps this was got hold of and drawn out, and was found to be the catheter, which had lain transversely, and in a curve corresponding with that of the brim of the pelvis. The patient recovered without any unfavourable symptoms. The explanation of the case given by the author was that the catheter had been passed into the cervix uteri and through its posterior wall, and by a careless removal of the stilette it had been forced still further. Pelvic cellulitis and perimetritis were set up, and had given rise to the abscesses in the hips and buttock.

# A SUCCESSFUL OPERATION FOR THE REMOVAL OF A LARGE FIBRO-MYOMA FROM THE FUNDUS UTERI.

By Mr. LAWSON TAIT, of Birmingham.

The patient, whose age was 34, had suffered from a large abdominal tumour of rather rapid growth for five years. There was profuse menstruation, and frequent symptoms of pressure on the pelvic organs. The tumour was central, and reached two inches above the umbilicus; was completely solid, and movable with the uterus. It was removed by an operation on January 16th, the steps of the operation being exactly the same as for ovariectomy. The tumour was found to spring from the whole of the fundus uteri, and the part of that organ above the internal os was removed with it. Recovery was rapid and uninterrupted, and the clamp came away on the eighth day. The tumour weighed eleven pounds, and was an ordinary fibro-myoma.

# MEDICAL SOCIETY OF LONDON.

MONDAY, OCTOBER 26TH.

Mr. VICTOR DE MERIC, F.R.C.S., in the Chair.

Mr. FRANCIS MASON exhibited a patient, aged 19, who had been under his observation for about five weeks, with a well-marked infecting sore on the upper part of the thigh situated over the great trochanter. The patient had a secondary eruption, and there was no other sore on any part of the body to account for it. Mr. Mason brought the case forward because the true nature of such cases was so frequently overlooked.

Mr. MASON also exhibited a child, aged 7 months, who had a congenital deformity of the right hand, which consisted of a palm with two fingers only, and these were webbed. Mr. Mason had placed a silk thread through the proximal end of the web, and this was allowed to remain for three weeks, when the perforation was found to be quite healed. The web was then divided and the wound rapidly cicatrised, the fingers being kept apart with lint. Mr. Mason showed a cast of the deformity before he had operated.

Mr. MAUNDER showed a girl of 15 years of age with an exostosis of the femur, which he had broken off with a large

pair of forceps (borrowed from the gasfitter) without any incision. The piece had become reunited in spite of daily motion, but the great pain was relieved and free action of the leg and thigh acquired.

# Dr. J. MILNER FOTHERGILL then read a paper on THE MUTUAL RELATIONS OF THE DISEASES OF THE HEART AND RESPIRATORY ORGANS.

He said, whenever there exists disease at the mitral valve the blood-pressure in the pulmonic circulation is increased. The capacity of the thorax is often diminished by attacks of congestion and dyspnoic results. The pulmonary vessels are thickened and dilated, and a similar condition exists in the muscular chamber of the right heart. There is often a development of connective tissue in the lungs, which may possibly give strength to the lung-tissue, and protect it from rupture in the violent respiration so often found in mitral disease. There may be rupture of the blood-vessels and hæmoptysis, or the formation of the infarctus Laennecii. The nerves of the lung are not structurally altered, but congestion of the lungs produces the dry, harsh cough, pathognomonic of cardiac disease. The effects of venous congestion are felt in the bronchial veins, and in advanced cases there is usually bronchorrhœa. Some were inclined to regard this as due to the increased pulmonary congestion; but the clinical fact is, that this so-called bronchitis is best relieved by digitalis, which increased the blood-pressure in the pulmonic circulation. The true pathology is fulness of the bronchial veins. The pleuritic effusions of advanced heart-disease are also due to general venous fulness. At other times diseases of the respiratory organs induced change in the right side of the heart. A case recently recorded by Dr. A. W. Foot showed that as well as right side hypertrophy there was enlargement of the pulmonary artery and its valves, by a hyperplasia of cell-elements not passing into inflammation. Commonly, disease in the lung led to disease in the circulation; but, as Niemeyer pointed out, this was not the case in the diminished bulk of blood in pulmonary tuberculosis. Frequently, in acute disease of the respiratory organs, death threatened from exhaustion in the right heart, where there was pre-existing mitral disease. Attacks of bronchitis were very fatal, unless the right heart were remembered in the treatment. In the treatment of diseases of the heart and of the respiratory organs, the true pathological sequences must be borne in mind, and certain consequential changes foreseen and guarded against.

# MEDICAL MICROSCOPICAL SOCIETY.

Mr. JAEZ HOGG President, in the Chair.

At the first meeting of this Society, for the session 1874-5, a paper communicated by Mr. John Gorham, of Tunbridge, "On a New and Expeditious Method of Micrometry," was read by the President.

The principle of the instrument described depended upon the measurement of lines drawn parallel to the base of an isosceles triangle—the base of the latter being given—by means of the sides, which are divided into a known number of parts. The triangle is obtained by dividing through the centre a disk of brass, about 1½ inch in diameter and half an inch thick, and bevelled at the edge, so as to allow of its being embraced by a stout india-rubber ring, by which means the two portions are held in perfect apposition at the edges of the section. The line of section, for the distance of one inch from the circumference, is marked out into fractions of an inch—at least into thirty-two parts—a less number being insufficient to obtain accurate results. A piece of paper of known thickness is now inserted between the halves of the disk, and moved along till its edge touches the commencement of the marked inch, the elastic band retaining it in its place, and thus an isosceles triangle, or gap, is left, with a base the thickness of the slip of paper, and with an edge of one inch, divided, as stated, into thirty-two equal parts. If a hair or cobweb be passed along the slit from base to apex, it will be arrested somewhere, and by reading off the number opposite which it stops, a simple matter of multiplication, the base of the triangle being known, will give the diameter required. For microscopic purposes the instrument is placed on the stage, and the object to be measured, placed on a thin glass cover, is slid over the aperture till it exactly at one point spans it. The diameter is then read off. To obtain still greater accuracy, Mr. Browning has added a



screw of known value, to separate the halves of the micrometer in lieu of the slip of paper.

It is apparent, from the ability to calculate by the aid of an isosceles triangle the value of all lines parallel to its base, such a figure would doubtless have been used long ago for measuring minute bodies if only bases sufficiently small and of known value had been placed within our reach; these being discovered, there would seem to be no real obstacle to the measurement of particles occupying such small portions of space as to be limited only by the confines of (so to speak) nothing. It is certain that no substance however small can elude the vigilance of such an instrument, and no substance, if the instrument be properly constructed, can even slide to its apex.

In answer to some questions by members of the Society, the President replied that the instrument was specially designed for unmounted objects, the thickness of an ordinary glass slide being rather an objection in the case of mounted ones. A thin glass cover might be in all cases employed for placing the specimen, *c.g.*, blood, or pus, upon.

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THE

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## The Medical Press and Circular.

"SALUS POPULI SUPREMA LEX."

WEDNESDAY, NOVEMBER 18, 1874.

### MR. STANSFELD AND THE CONTAGIOUS DISEASES ACT.

It needed none of Mr. Bouverie's prophetic spirit to enable anyone to divine the cause of the downfall of the late Ministry. The elements of destruction were too plainly visible to those who were watching the doings of many of the men Mr. Gladstone was unwise enough to admit into his counsel. The Ayrtons and Stansfelds did what they could to repel and offend his best friends and disgust the public mind. Such men were quite in their element when they were treading on every one's toes that came in their way. But it is most unpardonable that they should now be putting on an aggressive demeanour towards their chief, and endeavouring to bring discredit on the doings of the party with whom they were supposed to be acting in concert. Mr. Stansfeld one fine morning, finding himself at the head of a department he was utterly incompetent to conduct, hit upon a mode of concealing his ignorance by seeking to disgust and drive out of the office those better able and fitted for the work than himself. The able work of years, as well as the men who had inaugurated and carried it on successfully was thus very nearly sacrificed to the country. The "blundering and plundering" stupidity of this member of the Cabinet was fortunately brought to an early close by the falling to pieces of his party.

Two or three weeks ago Mr. Stansfeld reappeared on

the political stage as an opponent of the Contagious Diseases Acts, which he denounced, as putting a restraint upon the liberty of the subject. He seemed bursting with indignation, for he exclaimed, "I have marked these things—I have put my hand to the plough; I have cast in my lot with those men and women for ever revered in their names, as they led a forlorn hope: and never will I desist, and never will they desist from this sacred agitation until these degrading laws are blotted out from the statute-book for ever." We cannot help wondering how this right honourable gentleman stood quietly and tamely by when in office—nay, assisted his colleagues to enact a law which he now feels it a sacred duty to resist.

There can be no doubt that Mr. Stansfeld was in earnest, for last week he addressed another meeting, which was held at Bradford, under the presidency of Sir H. Johnstone, M.P., to promote the repeal of the Acts. There were, he said, two things which would have to be done towards securing their object—first, to induce religious denominations and other organisations concerned in the moral and religious welfare of the nation to take up the question; and, secondly, to show that the question had never yet been dealt with in a truly scientific spirit. A medical association in support of the movement had just been started, and it was already a great success. He was not in favour of the League attempting to make this a test question at Parliamentary elections. They should extend their organisation to all parts of the country. Sir H. Johnstone said he had undertaken to bring in a bill for the repeal of the Acts during the next session of Parliament.

We hardly congratulate the opponents of the Acts on the accession of Mr. Stansfeld, and may add that this is not the only way of showing his contempt for the profession. The position of the MEDICAL PRESS on this question is known, and is, we believe, more independent and more just than that of the other medical weeklies which have taken up a violent prejudice. We have, however, no taste for C. D. A. literature, and we view with indignation the proposal to set religious denominations by the ears on a subject which would thus be forced on the notice of people who should remain ignorant of it.

### THE ACTION OF DRUGS.

#### III.

THE third section of Professor Bennett's report contains various experiments, undertaken in order to determine whether there be any antagonism between hydrate of chloral and Calabar bean.

In seven cases extract of Calabar bean was given a few minutes after the hydrate of chloral, and the result seems to show that if the Calabar bean be given when the animals are completely under the influence of chloral the symptoms are modified, and the fatal result postponed. Then twelve experiments were made to ascertain more precisely, by the application of a crucial test, whether or not life could be saved from a fatal dose of extract of Calabar bean, and it was found that five out of seven rabbits survived; and these animals were killed eight days after by the same dose of extract of Calabar bean, without previous administration of chloral, in from six to fifteen minutes.

We here note, however, that although in the former

report *three-quarters* of a grain of extract of Calabar bean was given as the minimum fatal dose for a rabbit weighing 3 lbs., yet in Experiments 239, 243, and 244, rabbits, each weighing 3 lbs., recovered when *two-thirds* of a grain of extract of Calabar bean was given after fifteen grains of chloral, but died from same dose given alone some days after. And in Experiment 247 the rabbit weighed 3 lbs. 3 ozs., and succumbed to two-thirds of a grain of extract of Calabar bean. This, however, Professor Bennett accounts for by saying:—

“At this stage of the inquiry, it was found that the solution of the extract of Calabar bean supplied by Dr. Cook had evidently altered in strength, as two-thirds of a grain constituted a fatal dose for a rabbit weighing 3 lbs., instead of three-quarters of a grain as had been determined to be the fatal dose in the chloral-strychnia experiments. (See Table IX.) The difference between two-thirds and three-quarters of a grain is one-twelfth of a grain—that is, the fatal dose of the solution of extract of Calabar bean supplied by Dr. Cook had become one-twelfth of a grain less for a rabbit of 3 lbs. weight.”

In the next twelve experiments the extract of Calabar bean was given before the chloral, and, as Professor Bennett says, the experiments contained in Tables 17 and 18 “clearly show that, if hydrate of chloral be given before extract of Calabar bean, so that the animal is deeply under the influence of hydrate of chloral before it receives the extract of Calabar bean, the symptoms of the latter are much modified, and life saved from the effects of what would otherwise be a fatal dose. On the other hand, chloral hydrate is of comparatively little service as an antagonist to extract of Calabar bean if given some time after the latter. The reason of this is quite evident. Extract of Calabar bean produces its more severe physiological effects ten or twelve minutes after the administration of the fatal dose. In some cases the effects occur even sooner. On the other hand, a rabbit is not deeply under the influence of hydrate of chloral until fifteen or twenty minutes after it has been given. If the effects of extract of Calabar bean appear before those of hydrate of chloral, they usually run quickly to a fatal issue, because the antagonist, hydrate of chloral, is not acting with sufficient vigour to restrain them.

“It comes to be considered what is the nature of the physiological antagonism between extract of Calabar bean and hydrate of chloral. Is it a true antagonism, a neutralisation of the physiological effect of the one by that of the other? The effects of the one do not appear to be completely neutralised by those of the other. Even in those animals deeply under the influence of hydrate of chloral into which a fatal dose of extract of Calabar bean has been subsequently introduced, we do not find a complete absence of the symptoms referable to the presence of extract of Calabar bean. *There are still twitchings and startings, tremors, salivation, contracted pupil, &c.* (The italics are ours). But, on the other hand, the tendency to death by convulsions is obviated. If the animal be kept quiet, with a free circulation of air around it, it may recover. Cases of death after the introduction of both substances are to be referred to pulmonary congestion and the accumulation of fluid in the air-passages.

“From these experiments, it is evident that, in the

action of chloral hydrate and extract of Calabar bean, we have a good example of physiological antagonism (!!). This antagonism is, however, limited, as in all such cases, by two conditions: 1. *By the doses administered.* More than a minimum fatal dose of extract of Calabar bean destroys life, notwithstanding the administration of chloral hydrate. 2. *By the interval of time between the administration of the two substances.* There is a great probability of saving life in those instances in which both substances are given almost simultaneously. This probability is diminished if the chloral hydrate be given five or eight minutes after the extract of Calabar bean; while there is no chance at all if the chloral hydrate be given *more than eight minutes (!)* (italics ours) after a fatal dose of extract of Calabar bean. But even in those cases in which death occurs after the introduction of both substances, the effects of the Calabar bean are much less marked.

“These results must be regarded as very important. Several cases are now on record where ships coming from Africa have discharged Calabar beans on the shore, and which have been eaten by children with more or less poisonous effects. In such cases, the administration of chloral hydrate should at once be resorted to (within eight minutes we suppose). In Africa, fatal doses are designedly given by the ignorant natives as a test of guilt or innocence; and it will be well to remember that there it may not unfrequently occur that, as civilisation opens up the country to our missionaries and medical men, life may, in this way, not unfrequently be saved.”

Thus it is evident that, if the chloral hydrate be given more than eight minutes after a fatal dose of extract of Calabar bean, there is no chance at all of saving life. Such being the case, it is very doubtful if chloral would be of much practical value in the treatment of a case of poisoning in man by Calabar bean. And here again we incline to believe that the immediate inhalation of chloroform would be as efficacious, if not more so; it might be supplemented by the subcutaneous injection of chloral, so as to keep the patient some time under the influence. That the symptoms produced by Calabar bean are modified to a great extent when chloral is given first, and but slightly, if at all affected when the Calabar bean is given previously, we can quite understand when we remember Professor Fraser's experiments, showing that Calabar bean destroys the reflex functions of the cord, and eventually the conducting power of the nerves, which function chloral is evidently powerless to restore; in fact, chloral, through its primary action on the blood, depresses the reflex activity of the cord, and, if given first, only delays or prevents the *manifestation* of the action of the Calabar bean, simply because both drugs influence the same part. We must also bear in mind that, whereas, on the one hand, the Calabar bean exerts its influence almost immediately on introduction into the body (for in Experiment 119 a rabbit, after one and a-half grains, died in seven minutes), whilst, on the other hand, chloral (accepting Liebreich's theory) cannot commence to act till it has met sufficient alkali to decompose it, and thus set the chloroform free; moreover, the interval between the giving of the chloral and the development of its effects is most uncertain, and as yet it is difficult to say by what circumstances influenced, M. Byasson saying that the difference in the physiological phenomena is explained by

the intervention of formic acid, produced at the same time as the chloroform, and acting under special conditions, while M. Personne believes the combination of chloral with albumen explains the longer duration of the action of this body compared with chloroform.

The fourth section of the report under consideration still deals with Calabar bean, and may therefore be considered in connection with what has preceded. Morphia is next tried as an antagonist to Calabar bean.

Professor Bennett details the results of various experiments undertaken to ascertain the antagonism between hydrochlorate and meconate of morphia and Calabar bean. In the first place, nineteen rabbits were experimented on with hydrochlorate of morphia, to ascertain the minimum fatal dose, which Professor Bennett gives as *twelve grains* for a rabbit weighing 3 lbs., and states that "the predominant symptoms preceding death by a fatal dose were as follows: restlessness, contraction of the pupil, muscular twitchings, forward movements, convulsions, at first clonic, afterwards tonic—frequently at first there was a tendency to bending of the body forwards (emprostotonos), but always before death there was opisthotonos, that is, bending backwards." In the next place, ten rabbits were experimented with to ascertain the minimum fatal dose of meconate of morphia, and the conclusion arrived at was that about ten grains was the minimum fatal dose, the difference between the hydrochlorate and meconate being probably due to the superior solubility of the latter. Ten rabbits were then taken to test the question of the antagonism of morphia and Calabar bean. In five cases hydrochlorate, and in five meconate of morphia was given first, followed by extract of Calabar bean, and it was found that in all cases fatal results ensued. And Professor Bennett then concludes that these morphia salts are not antagonistic to Calabar bean.

In glancing over the various experiments recorded in the report, we note that *twelve grains* of hydrochlorate of morphia is given as the minimum fatal dose for a rabbit weighing 3 lbs., and that in Experiment 268 *five grains* given to a rabbit weighing 5 lbs. *only* produced drowsiness and contraction of pupil. Yet we find that *twelve grains* given to a colt produces muscular twitching, rigidity, restlessness, delirium, and increased action of heart, while *thirty-six grains* has been given to a horse without fatal results. But, according to previous researches, it only requires half a grain to narcotise a dog; (a) and probably less than a grain given in one dose would kill a man; (b) and in several instances one grain has proved fatal, and certainly a dose of two grains might kill a healthy adult unaccustomed to opiates. (c) Thus, we see that, *although* in all animals the influence of the drug is on the *same* parts, yet the effects produced vary greatly, according to the dose in different animals; this is a point that should be kept in mind when drawing inferences from experiments on animals.

It may not be out of place to observe that almost all lecturers on materia medica are in the habit of warning their students that many drugs poisonous to man may be

consumed with comparative impunity by many of the lower animals, and especially by the rodentia.

The conclusion arrived at by Professor Bennett in reference to the antagonism of morphia salts and Calabar bean is what we should naturally expect, for as both drugs act upon the same part—viz, the spinal cord—although the morphia also acts upon the cerebrum—partly as an excitant, partly as a depressant—and also deranges the function of the vagus nerve, thus depressing and enfeebling the heart's action—while, as we have already stated, Calabar bean destroys the reflex function of the cord, so we could hardly expect these drugs to antagonise each other. Thus, we see in Experiment 275 a rabbit weighing 4 lbs. recovers after thirteen grains of hydrochlorate of morphia, while in Experiment 293, to one of same weight was given three grains of hydrochlorate of morphia, and in six minutes two-thirds of a grain of extract of Calabar bean, and death ensued in seventeen minutes. Thus, although less than the fatal dose of each drug was given, the result was death, clearly proving that these drugs are the opposite of antagonists to each other.

## Notes on Current Topics.

### Toxic Quality of the Flowers of the *Colchicum Autumnale*.

WE noted very recently the occurrence of cattle poisoning in the county of Mayo, which was stated by the local paper to have been traced to the eating of the *Colchicum autumnale* by the stock on the land. The existence of a serious poison in the flowers of the plant had not hitherto been generally known. But we observe that a letter on this subject has been recently communicated to the French Academy, and is published in the *Comptes Rendus*. M. Pierre, the author, says that, having plucked some fully-expanded flowers in order to examine them more closely, he was surprised to notice that, after a few seconds, his fingers had changed colour, and taken the livid greenish yellow tint characteristic of a corpse in a state of incipient decomposition. After about ten seconds the skin regained its usual colour. As the discolouration extended throughout the length of the fingers, and even beyond, the question arose whether or not it was caused by absorption by contact at the extremity of the fingers. M. Pierre therefore extended his hand over a large clump of flowers, and carefully avoided all contact. The same phenomenon was produced with the same rapidity, and disappeared as quickly when the hand was removed. The experiment was repeated several times, and by different persons, but always with the same result.

Upon comparing the flowers capable of producing the phenomenon with those which appeared to have lost the power, it was noticed that the inactive flowers had commenced to fade, and that the pistils and filaments of the stamens were much paler in colour than on the preceding day, or than those of less advanced flowers. He therefore thinks it presumable that it is principally during or approaching the act of fecundation that the colchicum flower possesses in the highest degree the property above described.

(a) Dr. John Harley, "The Old Vegetable Neurotics." Burness and Mavor, "The Specific Action of Drugs," p. 131.

(b) Dr. Guy, "Forensic Medicine."

(c) Dr. Tanner "On Poisons."

The substance in the flower capable of producing this effect, the author thinks, is probably an extremely volatile substance which has not yet been studied. In this view he is supported by the fact that after a number of experiments, without contact, and without raising his hand to his mouth, M. Pierre experienced in the organs of taste a peculiar sensation (*sensation vireuse*), whilst his assistant, using the same finger many times, experienced a numbness in it which was persistent during several hours.

In connection with this action of certain principles of the colchicum flower, the author remarks that in the Gâtinais, where saffron is cultivated on a large scale, some persons, especially among women and children, cannot work at plucking the flowers without suffering from the symptoms of a peculiar poisoning, which manifests itself externally in a swollen and bloated appearance.

### Cutaneous Medicine.

DR. H. S. PURDON, Physician to the Belfast General Hospital, and to the Hospital for Diseases of the Skin has in the press a volume on this specialty. Dr. Purdon's work will contain the results of ten years' observation at the Belfast Hospital for Diseases of the Skin, embracing several new features as regards the successful treatment of certain forms of cutaneous affections.

### The late Dr. Anderson.

WE regret, says *Nature*, to have to record the death at Chiswick, on the 2nd inst., of Dr. Thomas Anderson, late Professor of Chemistry in the University of Glasgow. Dr. Anderson was born in 1819, and was educated at the University of Edinburgh. On leaving college he visited Stockholm, where he studied for some time under Berzelius, and afterwards went to Gießen and studied under Liebig. Returning to Edinburgh, he acquired considerable reputation by teaching chemistry in the Extra Academic Medical School at Edinburgh, and whilst so engaged received the appointment of consulting chemist to the Highland and Agricultural Society. In 1852 he succeeded Dr. Thomas Thompson as Professor of chemistry in the University of Glasgow, and discharged the duties of the Chair with great acceptance until 1869, when he was incapacitated from work by a paralytic seizure. Having had another attack of paralysis in May of the present year, he resigned his professorship in July last. Dr. Anderson was the author of several papers on the organic bases, especially those bases obtained from opium and coal-tar, and in the destructive distillation of animal substances. In a paper on "The Chemistry of Opium," read before the Chemical Society in 1862, he described a valuable method of extracting the alkaloids of opium, and determining their relative qualities.

### Paris Academy of Medicine.

PROPOSALS for the "reform" of the Paris Academy of Medicine are being carefully discussed by that body. It is proposed to reduce the number of members from 100 to 60.

### Paris Medical School.

THE Paris medical students have again been indulging their political prejudices by insulting a newly appointed

professor, supposed to be *clerical* in politics. They would have shown more sense by listening to what he had to say on pathology. The school has been closed for a time, and we hope when it reopens these silly young fellows will have found out that political views do not influence scientific teaching, and that rowdiness in the lecture theatre is a disgrace to any body of students.

### Is a Workhouse Infirmary an Hospital?

THE *Observer* understands that at the weekly meeting of the Chelsea guardians this question was raised under very peculiar circumstances. A woman had cut her throat, and Mr. Turner, one of the medical officers, on being called in, finding her sinking from loss of blood, took her to the workhouse infirmary, as being the nearest place to obtain proper assistance; but she died, and he was compelled to hear that the guardians considered his conduct "reprehensible." Mr. Turner sent a letter explaining the case, and expressing surprise that the action of a medical man in endeavouring to save the life of a fellow-creature, should be thus designated. It came out that the term "reprehensible" was only the expression of one individual guardian of the name of Birch. The board declared Mr. Turner's conduct satisfactory, but as a general principle it was not advisable to convert the workhouse infirmary into a hospital by admitting accidents into its wards.

### The Value of Oatmeal as Infants' Food.

IN a communication to the Société Médicale des Hôpitaux, MM. Dujardin-Beaumetz and Hardy make known the results of the employment of oatmeal on the alimentation and hygiene of infants. According to them, oatmeal is the aliment which, by reason of its plastic and respiratory elements, makes the nearest approach to human milk. It also is one of those which contains most iron and salts, and especially the phosphate of lime, so necessary for infants. It also has the property of preventing and arresting the diarrhoeas which are so frequent and so dangerous at this age. According to the trials made by Mr. Marie, infants from four to eleven months of age fed exclusively upon Scotch oatmeal and cow's milk thrive very nearly as well as do children of the same age suckled by a good nurse.

### Vitality of Jews compared with that of Christians.

A WRITER in the *Philadelphia Reporter* communicates several facts which are worthy of consideration. He addressed letters of inquiry to all the prominent Jews in the United States, asking the question, "Do the Jews ever have consumption?" From every quarter he received one reply—"The disease is very rare among them." The writer states that in an extensive practice he never saw a single case of consumption among the Jews.

Why this comparative immunity from this disease? Answer to this is made by quoting (1) tables of vital statistics made up from observations in the great centres of civilisation—England, Germany, France, &c. These tables revealed the following remarkable facts:—

In the first five years of life, of 100 Jewish children, 12 die; of 100 Christian children, 24 die. Among 100 Christians, 38 attained to 50 years. Among 100 Jews,

54 attained 50 years. Thirteen Christians in 100 attain 70 years, while out of 100 Jews, 27 attained 70 years. One quarter of all Christians attain only 6 years and 11 months. One quarter of all Jews attain 28 years and 3 months.

(2) In explanation of these facts, Dr. Neufville gives the following facts: There are no proletarians among the Jews, while one-tenth of the Christians live on charity. The difference between the Christian and Jewish merchants is strikingly pointed out by the tables before quoted. These show that among 100 merchants, one-half of the Christians die before 57, while one-half of the Jews live until 67. Why this greater relative longevity, this greater immunity from disease, and tenacity of life among the Jews than among the Christians? Is it from their rigid adherence to articles of faith and the hygienic, sanitary, and dietetic regulations of their religion? The *Pacific Medical Journal* remarks that a careful scientific inquiry into the cause of the above facts would be of incalculable benefit. If it should be found that obedience to physical and other laws was the cause of their physical strength, &c., then we should learn how to rejuvenate consumptive and other degenerate classes.

#### Hay Fever Sufferers.

THE hay fever refugees among the White Mountains have formed a permanent association for the discovery and spread of whatever promises to relieve or cure the malady.

#### Homœopathic Surgery.

RECENT criticisms of the Philadelphia newspapers as to the efficiency of the Homœopathic Hospital in that city are the reverse of flattering. It appears that by an extraordinary order of the Mayor, accident cases have of late been carried by the police to that institution, and a death having occurred, a coroner's inquest was held, which returned a verdict that death was due to delay in medical treatment, and that the physicians in charge were in the highest degree censurable.

#### Irish Visitors of Examinations.

WE note in the columns of the *British Medical Journal* a letter from a "Fellow of the King and Queen's College of Physicians in Ireland," in which the statement that the names of certain gentlemen had been "sent up or recommended" by the licensing bodies to the Branch Council is categorically denied. Inasmuch as the statement in question was copied directly from the MEDICAL PRESS AND CIRCULAR, we feel it necessary to repeat that—at least, as regards the great majority of the licensing bodies—it is perfectly accurate. The Council of the Royal College of Surgeons did send forward the names only of those Fellows whom they recommended, although there were many other candidates, and we believe that the University of Dublin and the Apothecaries' Hall followed the same course. As regards the Queen's University, the statement contained in our journal, and repeated in the *British Medical Journal*, turns out to be not equally accurate. No names of graduates were recommended from the Senate, but the reason was not—as our statement implied—a refusal on the part of the Senate to co-operate. The fact is, that in the hurry of the examinations,

which were at that time going on, the matter was overlooked.

#### New Books in Medicine, Surgery, and Science.

(From the Bookseller).

##### Parliamentary.

CENSUS (Ireland). 1871. Counties of Donegal, Fermanagh, Down, Londonderry. 1s. 3d., 1s. 1d., 1s. 2d., 11d.

Factories. Inspectors' Reports for Half-year ending April, 1874. 8vo. 7d.

Galway. Report of the President of Queen's College for 1872-73. 8vo. 9d.

English Local Government. Third Annual Report of the Local Government Board. 8vo. 4s.

Meteorology. Report of the Meteorological Committee of the Royal Society for 1873. 8vo. 4d.

Prisons (Ireland). Fifty-second Annual Report. 8vo. 2s. 9d.

##### Medical and Surgical.

Aitken, Outlines of the Science and Practice of Medicine. 12s. 6d.

Anderson (Dr. McCall), A Practical Treatise upon Eczema. 3rd ed.

Barrett (Howard), The Management of Infancy and Childhood. 5s.

Bell (Sir Charles), The Hand. 9th ed. 9s.

Bernays (Albert J.), Chemistry. (Manuals of Elementary Science.) 1s.

Chapman (John), Medical Charity: its Abuses, and How to Remedy Them. 2s. 6d.

Ellis (George Viner), Demonstrations of Anatomy. 7th ed., revised. 12s. 6d.

Fox (Edward Long), The Pathological Anatomy of the Nervous Centres. 12s. 6d.

Flückiger (Friedrich), and Hanbury (Daniel), Pharmacographia: A History of the Principal Drugs of Vegetable Origin. 18s.

Fothergill, The Maintenance of Health. 12s. 6d.

Moore (S. W.), Demonstrations of Physiological Chemistry. 3s. 6d.

Murchison (Charles), On Functional Derangements of the Liver (the Croonian Lectures.) 5s.

Nayler (George), Treatise on the Diseases of the Skin. 2nd. ed. 12s. 6d.

Norton (Arthur Trehern), Osteology: a Concise Description of the Human Skeleton. Adapted for the Use of Students in Medicine. Accompanied by an Explanatory Atlas of Plates. 2nd ed. 8vo, pp. 170. Baillière. 7s. 6d.

Reese (John J.), Manual of Toxicology. 12s. 6d.

Ringer (Sydney), Handbook of Therapeutics. 4th ed. 12s. 6d.

Squire (Peter), Companion to the British Pharmacopœia. 10th ed. 10s. 6d.

Tanner (Thomas Hawkes), The Practice of Medicine. 7th ed. 31s. 6d.

Wood (H. C.), Treatise on Therapeutics. 12s. 6d.

##### Science.

Dawkins (W. Boyd), Cave Hunting: Researches on the

Evidence of Caves respecting the Early Inhabitants of Europe. 21s.

Drysdale (John), *The Protoplasmic Theory of Life*. Post 8vo, pp. 296. Baillière. 5s.

Hall (Thomas W.), *Sun and Earth as Great Forces in Chemistry*. 3s.

Marey (E. J.), *Animal Mechanics: a Treatise on Terrestrial and Aërial Locomotion*. 5s.

Ritchie (Archibald Tucker), *The Creation: the Earth's Formation on Dynamical Principles, in accordance with the Mosaic Record and the latest Scientific Discoveries*. 5th ed. 18s.

Schoedler (F.), and Medlock (H.), *The Treasury of Science, Natural and Physical*. New ed. 7s. 6d.

Spottiswoode (William), *Polarization of Light*. (Nature Series.) 3s. 6d.

### Horse-hair Sutures.

DR. FAYRER says, in a recent work: "Well selected white hair out of a horse's tail is, in many respects, better than any suture hitherto devised. . . . That from the tail of a white or grey horse is the best. I hardly know why it should be so, but I find the white is better than the black hair."

### The Visiting List.

ALREADY Messrs. Smith and Co. have issued their invaluable—nay, almost indispensable, companion for 1875. So well is the work known, and so often have we commended it, that we have nothing new to say of it. We have carried it in our pocket again all through the year, which the new edition reminds us is fast vanishing, and we hope to carry the List for 1875 through the coming year.

### The Dwellings of the Poor.

THIS may be considered as a question of special interest to the profession, and our readers will not have forgotten the action taken about it by the London College of Physicians. No doubt the question presses, and time passes while action seems delayed. It is therefore gratifying to record from time to time the attempts of philanthropists to bring home to Government and people the importance of this matter. This week Sir S. H. Waterlow has, at the suggestion of the right hon. gentleman, addressed to the Home Secretary a letter on the subject. Premising that the company of which he is chairman has already spent, and is about to spend, sums amounting to a total of £335,000 in providing dwellings for upwards of 9,000 persons, and that other associations and individuals have provided accommodation for about 20,000 persons, the hon. baronet says the only difficulty in the way of the rapid progress of the work is the impossibility of obtaining suitable sites in densely populated districts. It is of the greatest importance to the vast majority of the working classes that they should reside near the place of their employment, and to the markets for their trades. The efforts which have been made to lessen the evils of over-crowding and to improve the dwellings of the labouring classes, although they have had very beneficial results, do not reach the real evil, which is the inability, owing to the variety of interests in this kind of property, to purchase and

remove houses unfit for human habitation. Compulsory powers are necessary, and these ought only to be exercised by some public authority. Sir Sidney Waterlow suggests that the Legislature, recognising the local authority which the Metropolitan Board of Works and the City of London exercise over the districts under their control, should impose upon these two public bodies, or upon some other public authority, or upon public commissioners, the responsibility and the duty of submitting to Parliament, from time to time, schemes for public improvement, involving the destruction of houses unfit for occupation, and the appropriation of the sites when cleared for the reconstruction of tenement houses suitable for the labouring population, upon plans to be approved by the local authority. The various interests concerned would, of course, be compensated in the same way as if the property were taken for a street improvement. A sum of £2,000,000, the interest and repayment of which would be provided for by a rate of 1d. in the pound in the metropolis, would, if applied in the mode suggested, remove to a very large extent the houses in the metropolis at the present time unfit for human habitation. Sir S. Waterlow further suggests that the Public Works Loan Commissioners should be empowered to make loans to companies and individuals, as well as to local authorities, for the construction of dwellings for the working classes in populous places, at a lower rate of interest than four per cent. on the security of the property.

### Losses in War.

M. CHENU, Medical Inspector-General of the French Army, reports the losses sustained by the French to be as follows:—Killed, disappeared, or died of wounds and diseases, 138,871; wounded by the enemy's fire, 143,000; men disabled by marching, 11,421; 11,914 missing are treated as dead. These figures include 2,881 officers killed or who died of wounds and disease, and 96 missing, with 17,240 prisoners who died in Germany, 1,701 in Switzerland, and 124 in Belgium. While 17,240 deaths, then, occurred in captivity, only 1,220 soldiers were killed at Gravelotte, the bloodiest battle of the war. The German losses were:—Killed or died of wounds and disease, 40,741; missing and treated as dead, 4,000; wounded, 127,867. To these have to be added 1,795 killed, 6,600 wounded, and 1,539 missing in skirmishes, patrols, and slight engagements. The Germans had 44,000 deaths, the French, 138,871; the Germans 127,000 wounded, the French 143,000. The French had 11,421 men disabled by *plaies de marche*—that is, through defective socks, boots, and gaiters, while the Germans suffered but little from this cause. M. Chenu shows that in the Crimea and Italy, as well as in the last war, disease was more fatal than the sword, this being partly attributable to commissariat, outfit, and hospital shortcomings.

IN London 2,579 births and 1,446 deaths were registered last week. The births exceeded by 139, whilst the deaths were 140 below the average of the corresponding week of the last ten years. The annual death-rate, which in the last week was at 20 and 21, rose last week to 22 per 1,000 of the population.



### Proposed Reconversion of Hospital Buildings.

LAST week the Hampstead vestry had an excited meeting upon the question of the reconversion by the Metropolitan Asylums Board of the Hampstead Hospital buildings as an establishment for contagious diseases. A report from a few members of the profession was presented, stating that the site was most inappropriate. Not only were there several schools in the neighbourhood, but being in a hollow by the side of a hill, the contagion would be carried in a direct line down the Fleet Valley to the heart of London. It was also pointed out that there was a large establishment, the Orphan Working School, in close proximity. Upon the motion of Mr. Le Breton, member of the Metropolitan Board, a resolution was adopted declaring the site as wholly unfit for the purpose, and that a deputation wait upon the Metropolitan Asylums Board for the purpose of enforcing their views, and to try every possible means for the removal of the hospital.

### Scarlet Fever in the Metropolis.

THE Registrar-General reports that the deaths from scarlet fever, which in the two previous weeks had been 105 and 123, declined last week to 107, viz., 39 in the east, 25 in the north, and 22 in the south group of metropolitan districts. The annual death-rate from the disease averaged 1.6 per 1000 of the population. The disease was especially fatal last week in Shoreditch, Bow, and Poplar.

### Edinburgh University.

THE election of Lord Rector of this University took place on Saturday last, and resulted in the election of Lord Derby by a majority of 187 votes over Dr. Lyon Playfair. There was the usual amount of noisy rivalry between opposing factions, and the students indulged in those gentlemanly pastimes of pea-shooting, flour and rotten-egg throwing to their hearts' content, and to the no small annoyance of those who were specially singled out for their attention.

### The Wine Question.

A DINNER was given by the Portuguese Government in London on Saturday last, which possessed both political and commercial significance. The Portuguese were the largest exhibitors at the International Exhibition, now closed, having placed at the disposal of the public for tasting purposes the enormous quantity of 24,000 bottles of various kinds; and as a graceful compliment to the English press, and a fitting close to the recent Exhibition, this dinner was given. Dr. Frankland, Mr. Brudenell Carter, Mr. Gaskoin, and other members of the profession were present, presided over by Dr. De Aguiar, the Commissioner to the Portuguese Government, and a chemist of European celebrity. During the evening twenty-seven unfortified and unadulterated wines, the production of the various districts in Portugal, were passed round and enjoyed by the company present. In the course of his speech, Dr. Frankland remarked that, when wine came into contact with chemistry it was frequently a very suspicious matter, but having free access to the cellars at the Inter-

national, he had taken great interest in these wines, and the results of his analyses were eminently satisfactory, in fact, they confirmed the old adage, that "good wine needs no bush." The President, Dr. De Aguiar, delivered a most exhaustive speech in French, paying a graceful compliment to the wines of Hungary, which country was also represented by a commissioner present, and condemning very strongly the vitiated taste for brandied wines, and the abominable systems of almost universal adulteration which pandered to such tastes. Altogether the meeting was both enjoyable and instructive, and the thanks of all present were unanimously voted to Dr. De Aguiar for his courtesy.

### Progress of Cremation in Germany.

A SECOND act of cremation was successfully performed on the 6th inst. in the same oven at Dresden in which the body of Lady Dilke was recently consumed. The body was again that of a young married lady, twenty-three years of age, the wife of a South German physician. The hall around the furnace was decorated with flowers, and in every other respect the solemnity which should attend so serious a rite was duly observed. No clergyman could, however, be found to take part in the ceremony and speak a burial address over the dead body; so Herr Siemens, the constructor and proprietor of the oven, delivered a brief but impressive speech, after which the coffin was committed to the flames. The process of cremation was screened from the eyes of the lady's friends by an iron door, but a small number of physicians and other scientific men witnessed the operation through a slit in the wall. They describe the spectacle as free from anything offensive either to the senses or the imagination. The current of hot air burning up the body appeared as a transparent flame of a pale reddish hue. There was no smoke or any unsightly transformation of the body. When the coffin was consumed the body appeared in its natural state, then red hot, and at last appeared to be of translucent white. From this it crumbled into ashes. Up to the period of its entire consumption by the flames the process was merely as a rapid drying up. After seventy-eight minutes all organic matter was gone, and nothing remained but a small heap of ashes, which was conveyed away in an urn.

### Counter-Practice and "Simples that can do no harm."

DR. BUCKINGHAM, the Professor of Midwifery at Harvard University, publishes in the *Boston Medical Journal* some very admirable observations on the mutual relations of druggists and physicians, in the course of which the following cogent remarks occur:—

"There is one matter of interest to all of us, and to the public as well, which I am not sorry to have an opportunity to allude to. I refer to the habit which some druggists have of prescribing. 'Well,' say you, 'why is not my prescription as good as that of any old nurse, or any other neighbour who has strayed in?' It is exactly as good, and no better. The sore-throat, of which you know nothing, may be the result of insufficient dress, or of almond candy. The diarrhoea may be the beginning of a typhoid fever, or from want of flannel drawers. The constipation may be owing to too little food, or approaching disease of the brain. All of them may be simply

symptoms of dyspepsia. One dyspepsia may require an acid, another an alkali; one needs a dose of physic, another requires food; one wants out-of-door air, and another a warm bed. One needs to have the patient stop his head-work, and another would be benefited by any change from his present style of life. Cough may have cause in the head, in the throat, in the lungs, in the stomach. The very medicine which you give, without knowledge of the particular patient, and how to examine him, may be the means of aggravating the disease.

"To say that this medicine is very simple, and if it does no good, cannot do harm, is one of the most common of mistakes. If no other harm is done by it, there may be serious loss of time. But what is a simple remedy? You, perhaps, will say 'tollu, ipecac, castor-oil, salts, rhubarb.' If a man asks you for a compound cathartic pill, or for a dose of paregoric, that is all very well. I know of no reason for refusing him. If he asks you what the best cathartic for him is, or what would do his cough the most good, that is a very different matter. You know, and can know, nothing about it. If one man's meat is another's poison—and this is literally true—the parallel comparison will hold equally good concerning medicines.

"I have a case on my books which is a fair, but ludicrous illustration of the value of such prescriptions as are 'simple, and can't do any harm.' I was called to see a little girl, who had been kept at school on Saturday till after her usual dinner hour. When she got home, vexed and tired, notwithstanding she had a slight headache, a slice of beef-steak would have relieved her. The headache led the mother to give a dose of castor-oil, and to offer gruel, which was refused. Sunday, no improvement, and tincture of rhubarb was taken. On Monday, no better; senna and salts. Tuesday, no better, and a dose of elixir pro. On Wednesday afternoon I was called in, and informed by Mrs. — that, having no other medicine in the house, she had given the little girl an emetic, and it had brought up a great deal of bile, and she feared the child would never recover. The advice given was to feed the and let medicine alone. Yet these were all what are called simple medicines. With the exception of great weakness and loss of flesh, the child was in her usual health in twenty-four hours.

### A Deadly Medicine.

UNDER the above title the *Globe* of Friday last published the following remarks:—

The evidence given before a recent inquest at Manchester deserves attention, as proving the great danger attending the use of certain drugs that have come into fashion during late years. A man named Alfred Holme, being troubled with some sort of nervous headache, was recommended by a friend to try hydrate of chloral as a remedy. Following this foolish advice, he sent for a 6 oz. bottle of the compound on Monday, and within twenty-four hours he was found dead. According to the medical evidence the man's death was *syncope cordis*, produced by the action of the hydrate on a weak heart. The doctor who gave this testimony also stated that hydrate of chloral is very little understood even by medical men, he himself being ignorant as to whether its effects are cumulative. This allegation of general want of knowledge regarding the power of the medicine was corroborated by the chemist who sold the dose to the dead man. Yet, although it was his opinion that the hydrate of chloral ought not to be given except under medical advice, he appears to have made little inquiry when making up the prescription brought to him by Holme's daughter, a little girl about eight years of age. As the bottle contained 6 oz., while the label directed a tablespoonful to be taken every two hours, the unfortunate man was virtually instructed that he might with safety drink within every four-and-twenty hours what was almost certain to kill any one with a weak heart. The sad results following the use of the medicine in this case will, it is to be hoped, render hydrate of chloral and similar strong physic less fashionable. Unless perfectly

acquainted with their constitutions, people who fly to these remedies for relief may inadvertently be running the risk of death.

We quote this paragraph, although it contains but an incomplete history of the case, inasmuch as it would be well if all the organs of public opinion would set themselves against the too prevalent folly of indulging in the luxury of taking powerful drugs without medical advice. Injury is constantly done by such conduct. Too often life is thus sacrificed.

OUR Berlin contemporaries report that seventy-six cases of trichinosis have occurred among the garrison of that city.

Two men were last week suffocated in a nursery garden at Edinburgh by the vitiated air from a hothouse entering a lobby where they were sleeping.

A CASE of hydrophobia was reported last week at Manchester, the patient having been bitten by a stray dog, and death having resulted from the bite. A verdict in accordance with this evidence was given.

PROFESSOR ROLLESTON has been appointed to represent the University of Oxford, and Professor Humphry to represent the University of Cambridge in the General Council of Medical Education and Registration for the next five years.

THE Local Government Board have written to the Thurles Board of Guardians with respect to the salaries allowed by them to the sanitary medical officers. They consider the sums named totally inadequate.

LAST week the highest rate of mortality from typhoid fever was reached since the commencement of the outbreak—twenty-four persons having died. Although there have been so many fatal cases, Dr. Handle, the medical officer of health, states that the fever is now subsiding, that the fresh cases are comparatively few, and that the old ones are rapidly passing into convalescence.

CERTAIN alterations to secure isolation of the inmates of the Norwood schools, which have recently been visited with a severe outbreak of scarlet fever, were suggested at the last meeting of the board, and an instance was adduced in which fever had been introduced into one of the establishments of the board by means of a woman and a child who had come from an infected room visiting it. Thereupon the board of guardians very properly and promptly resolved that visitations to the several establishments under their control should be suspended during the prevalence of the epidemic.

THE India Museum will be arranged, by an efficient staff. Dr. J. Forbes Watson retains his appointment of Chief Reporter on the Products of India, and becomes Director of the Museum. The appointment of Assistant Reporter on the Products of India and Curator of the Museum has been conferred on Dr. Birdwood. Mr. Moore, Dr. Cooke, and Lieut. Royle—each of whom has made his

mark in the scientific world—have received appointments as assistant curators.

THE *Philadelphia Reporter* publishes one of the most remarkable series of coincidences on record, taken from the statistics of Iowa and Georgia in the matters of insanity, blindness, &c. The populations are given as follows:—Georgia, 1,185,000; Iowa, 1,182,933 (the national census made them 1,191,792 and 1,184,103 respectively), and the following were the showings of the two States as to their unfortunate classes:—

	Georgia.	Iowa.
Insane . . .	1,185	1,183
Idiotic . . .	790	789
Deaf and Dumb . .	677	676
Blind . . .	474	473

## Literature.

### NORTON'S OSTEOLOGY. (a)

WE welcome the new edition of Mr. Norton's "Osteology," which will be found of material assistance to the tyro in anatomy. It has frequently been said, and with truth, that a thorough knowledge of the bones is not only the best introduction to anatomy, but renders every other branch of that science comparatively easy. Mr. Norton's work possesses the cardinal merits of clearness and brevity. The descriptions, though less detailed than those of Ward, will, we believe, be found quite sufficient, and, by the aid of the plates, cannot be misunderstood. These plates, twenty in number, are beautifully executed, and may either be had separately, or bound up with the text in a single volume. The letterpress, too, deserves a word of commendation. Indeed, the work, as a whole, reflects credit on author, artists, and publishers alike.

The first portion of the work contains a concise description of each bone in the human body, with small numerals above the line referring to each point shown in the plates. These numerals are one of the improvements introduced into this edition, and cannot fail to arrest the student's attention. They save him the trouble of searching amongst the references attached to the plates for the point required.

The second portion of the work, or the "Atlas," which, as we have said, may also be had bound separately, is furnished with another set of references opposite to the figures. Thus, the Atlas may be used not only while reading the text, but also alone, for the purpose of self-examination, an exercise the student cannot too often indulge in. The author, however, cautions students against trusting to the plates alone, and urges them to have the bones constantly before them. This is undoubtedly good advice; but we believe that such plates as these cannot fail to assist him. The chapter on "Ossification" has been extended in this edition, the author, since the publication of the first, having himself made numerous dissections of fetal bones of different ages. The results are embodied in this chapter, which contains a fair summary of our present knowledge of the subject.

We have only met with one misprint, and that a trivial one—viz., the figure 8 being repeated twice, instead of 8 and 9, on page 16, line 4.

In a future edition, which the work deserves to reach speedily, Mr. Norton might add to its utility by including in the index the names of the muscles and ligaments mentioned in his descriptions.

(a) "Osteology: a Concise Description of the Human Skeleton," adapted for the Use of Students in Medicine, accompanied by an Explanatory Atlas of Plates. By Arthur Trehern Norton, F.R.C.S., Assistant-Surgeon, Surgeon in charge of the Throat Department, and Lecturer on Anatomy, St. Mary's Hospital: Second Edition. London: Baillière, Tindall, and Cox. 1874.

### ARCHIVES OF DERMATOLOGY. (a)

THE first number of an American journal, devoted specially, though not exclusively, to the illustration of cutaneous diseases, has reached us, and it is got up in such a creditable manner and well edited, that we gladly welcome its appearance.

The first article in its pages is with reference to *Rothela*, or German measles, which is described with care and clearness by Dr. J. Lewis Smith. He observed the epidemic in New York from the close of 1873 to May, 1874. It will be read here with more interest, as a wide-spread epidemic of the same affection has for several months past occurred in this city, and dropping cases are still often met with. Dr. Smith speaks decisively on the point of *Rothela* being completely distinct from *roseola*, *measles*, and *scarlatina*, and states what other observers are fully agreed on, that it does attack children who a short time before or afterwards run through a well-marked attack of true measles. Thus, out of forty-eight cases seen by him up to May 1st, at least nineteen had had measles, and one who had the *rothela* took measles a month subsequently. Also "in the Foundling Hospital *rothela* closely followed an epidemic of measles. A considerable number of the children affected with the former disease had recently recovered from the latter." With regard to the distinction between it and *scarlatina*, Dr. Smith says: "That *rothela* is not a form of scarlet fever is evident from the fact that, as regards at least the New York epidemic, the rash was in most instances quite different from the scarlatinous effervescence, occurring, as we have seen, in small more or less circular points and patches. Moreover, there is in *rothela* a slight febrile movement, and general mildness of symptoms, quite unlike what we observe in *scarlatina*; or if there is a considerable febrile movement, it is of short duration. But the decisive proof of an essential difference between these two diseases is found in the fact already stated in regard to measles—namely, that an attack of the one malady does not prevent the occurrence of the other. There are, it is true, cases in which it is difficult to make the differential diagnosis between *rothela* and mild measles, or mild *scarlatina* at first; but when the course of the malady has been closely observed for three or four days, it rarely happens that we are unable to make out its character."

There is also a good descriptive paper upon *urticaria*, by Howard F. Damon, M.D., with reference to its frequency and varieties. Close upon 300 cases form the basis of his descriptions, which are drawn up with clearness and ability. We should hope that another paper, giving us some good general rules for the treatment of this Protean and troublesome symptom will reach us ere long. The attention Dr. Damon has devoted to tabulating its various external appearances convinces us that he has watched it with unusual care, and is most competent to offer us the desired paper on its rational treatment.

Dr. Bulkley contributes a short but suggestive paper on "Cases of *Herpes Zoster Frontalis* successfully treated by Electricity." The attack occurred to a lady, thirty-six years of age. The eruption had appeared five days previously. The right forehead was covered with groups of vesicles and bullæ, also the upper lip, eyelid, and through the scalp on the same side numerous clusters could be seen or felt. The right eye was closed by oedema of the lid, but the cornea was intact. She complained of intense and pretty constant pain through the eye, running backwards, with occasional sharp accessions, causing her to cry out, and sleep had been entirely interrupted.

"May 30.—Electricity was applied by Dr. G. M. Beard last evening. A continuous galvanic current from eight cells was employed, the negative pole being placed indifferently on the back of the head, neck, and epigastrium, and the positive passed with a moist electrode over the eruption and pressed upon the eye. The relief obtained

(a) "Archives of Dermatology," No. 1, vol. i. Edited by Duncan Bulkley, A.M., M.D. New York.

was prompt, occurring in about three hours, so that she slept comfortably, and had no very acute pain since the first application. The electricity was subsequently applied daily, gradually increasing its strength until sixteen cells were used. (June 8), with the view of hastening the exsiccation, diminishing the amount of scarring, and relieving the slight dull aching pain that remained."

If subsequent observation confirms the assertions here made, a valuable addition to the resources at our disposal for treating herpes zoster will be secured; at all events, the question is worth investigating.

There is a copious "digest of literature" on various topics bearing on cutaneous affections that must cost the compilers much research and trouble. In conclusion, we can with truth say we wish this journal long life and prosperity, and its editor and his staff every possible success.

### "ON MYCETOMA, OR THE FUNGUS DISEASE OF INDIA." (a)

ON prosecuting an inquiry into the etiology of an obscure form of disease it behoves us to be cautious, lest a preconceived opinion should bias the judgment and lead one to look upon a plausible theory as a settled fact. The faculty of nice discrimination is certainly required for the investigation of a disease supposed to be of parasitic origin. A remarkable form of affection, confined to the extremities, and peculiar to the Indian climate, believed to be due to a fungus growth, was first observed some twenty years ago by Dr. Gill. An amputated foot was "found to be a mass of disease of a fibro-cartilaginous nature, with entire destruction of the joints, cartilages, and ligaments; it had neither shape nor feature, and was covered with large fungoid excrescences discharging an offensive ichorous fluid." Since then a most indefatigable observer, Dr. Vandyke Carter, has given much time and attention to the study of the disease, and published several papers in the journals on the subject; the results of his labour now for the first time appear in a collected form, and Dr. Carter hopes thereby "to render his data and illustrations more accessible than before, and to extend a knowledge of the fungus disease of India."

This monograph certainly furnishes a very interesting clinical and medical history of the Madura-foot Disease. The author prefers to designate it "Mycetoma," and by which he means "a tumour resulting from the growth within the textures of the human body of a simple organized vegetable parasite." There are, he tells us, "two chief varieties, presenting two colours, 'melanoid' and 'ochroid' (pale and dark), and the particles themselves which appertain to each variety are termed *sclerotia* and *malacotia* (hard and soft). Dr. Carter proceeds to give the local and general characters, the anatomy, pathology, progress, and treatment of the disease, and its natural history. In an appendix he furnishes a brief summary of its bibliography, while numerous well-executed drawings of mycetoma in all its varied phases greatly assist the reader to comprehend the nature of the growth.

The pathological characters of the disease are peculiar, although a fuller and more accurate account of its incubation, or rather its earliest stage, is even now much required. The patient, it appears, is seldom seen "before a sinus is formed in the soft parts, and a discharge of the particles commenced;" this naturally leads to an unsatisfactory "perhaps" as to how the fungus germs first pass inward, develope, and grow. More frequently patients present themselves with a foot or a hand (generally the former) much swollen, of a dark colour, and studded with numerous sinuses; the form of the swelling

is more or less globular, and as to its extent, the whole of the member, on one side or part only, may be implicated. In the former case the projecting fingers appear to be imbedded, being themselves generally free, and the sole or palm is flat, or even convex. Seldom does the disease extend beyond the ankle or wrist, and its whole appearance, at first sight, somewhat resembles a long-standing scrofulous affection. The sinuses are many in number, and often clustered together about the sole, ankle, or dorsum of the foot; some are simple openings, others are raised upon soft elevations, or present a pouting edge. The appearance of the more recent, especially in preserved specimens, is characteristic, being circular in form, from one-third to one-half inch in diameter, and gradually deepening towards the central aperture from the removal of successive layers of cuticle; white patches are frequently seen around; the size of the foot, its globular form, and the number and appearance of the sinuses being the chief diagnostic characters, to which may be added the absence of a corresponding degree of constitutional disturbance, pain, or hectic fever. The patients generally have a scrofulous, or syphilitic taint. But there is one test which is applicable to almost all cases, and that is, the character of the discharge. Sometimes the fungus particles are so abundant as to block up the apertures of the sinuses, or float away in numbers in the thin serous or sero-purulent fluid, and when less numerous they may generally be detected with the aid of a lens. In the black variety a single glance will be sufficient, and in the pale and soft (which have been well compared to mustard, or poppy seeds) their appearance is hardly less characteristic. The presence of these particles in the discharge from the sinuses is an infallible test of the nature of the disease, and by the use of the microscope we are early enabled to make a correct diagnosis. The external appearances of mycetoma appear to be the same whatever the form of pseudo-growth; the sinuses are the terminations of canals more or less lengthy and tortuous, which occasionally lead to bone; but the latter will not usually yield to pressure of the probe, for it is not really in a carious condition, although partly absorbed.

A section of a foot thus affected presents on first view much confusion of parts. The skin is greatly thickened, and the bony, muscular, and fibrous tissues seem blended and intermixed with a glairy or tenacious slough-like material of reddish or blackish tint; globular masses of fungi, too, are seen scattered about, which are either yellowish and of cheery consistence, or deep brown or black, and much firmer.

The collections of fungi are lodged in spherical cavities, hollowed out in the osseous cancellous tissue, or in the soft parts, from which "loculi" branching tubular canals pass off, frequently inosculating, and terminating either in closed expanded extremities, or on the surface at the sinus apertures. These canals, like the loculi, are lined throughout by a membrane, easily separated from the bone, or blended with the softer tissues; and they also contain fungus particles embedded in the soft or glairy material above-mentioned. It is evident that their office is to conduct the fruits of the vegetable parasite to the external surface, where they are expelled in the serous discharge. A varying amount of inflammation, with its results, attends the growth of these foreign bodies, and the bones of the foot and leg, or of the hand, are affected in a striking manner; the spherical cavities which they contain are the most peculiar feature, and caries, or ulceration of the articulations is seldom present, absorption from pressure being the only agent at work.

The ordinary duration of the disease is prolonged. The cases seen vary from four to ten, or even thirty years' standing, and its termination seems only coeval with exhaustion of the vital powers. Some idea of the frequency of this unique affection may be gained from the fact that individual observers in this country (India) reckon their cases by the score. In Bombay a year seldom passes without three or four cases being seen at the Jamsetjee

(a) "On Mycetoma, or the Fungus Disease of India." By H. Vandyke Carter, M.D. Lond., of H. M.'s Indian Army. Churchill. 1874.

Jejeebhoy Hospital, although the disease is not endemic here. It has only been seen in natives hitherto, the explanation of which is that they go about bare-footed, and seldom wash the feet thoroughly. Other noteworthy features are the following: It has mostly a local manifestation; it is much more frequent in men than in women, and during the middle periods of life, and commonest among the agricultural classes; it is not hereditary, or peculiar to any diathesis; and is unlike a scrofulous affection, leprosy, or elephantiasis."

Our sketch of the disease is necessarily brief, but sufficiently comprehensive to make our readers acquainted with its general characters. Dr. Carter, as we have already intimated, describes two varieties of mycetoma—a pale and a dark—with two forms of discharge, and in common with other observers, has met with cases in which no evidence of a fungoid growth could be detected. Case 6, page 11, is a case in point—a Hindoo woman whose right foot was affected by a soft variety, and "the peculiar roe-like masses, quite beneath the skin, were at once examined under the microscope, and no fungus particles were discovered." This is by no means a solitary instance, and while the full details given evince a laudable desire to conceal nothing, they serve to give colour and strength to opinions expressed by other trustworthy investigators, who have hitherto failed to discover "fungus particles," (a) and in the words of the author, "become acquainted with any facts which would even suggest the idea of an infection of the whole system by entophytal spores." The author, however, asserts "that the foot disease of India is not a carious, strumous, myeloid, or any like affection, but a veritable parasitic disease, due to the growth and extension within the tissues of the human foot of an indigenous mould or fungus of a true plant nature." Dr. Carter be-

lieves, and is supported in this view by an eminent mycologist, that the fungus belongs to a peculiar and undefined species, although we notice recently a modification of his views in the pages of a contemporary (*Lancet*, July 11th, p. 44). He there writes: "The nature of the parasite is not now so much insisted upon as its presence; and the question is especially considered whether such foreign organism is not the sole proximate cause of a tumour (often large in size) of the foot or hand." Space will not permit us to follow Dr. Carter throughout in his arguments in favour of these views, and we must content ourselves by making a few remarks on the relation said to exist between the parasitic growth and the phenomena of disease in the foot. In the first place, we are free to confess that we do not quite see how the minute spores of a plant can penetrate and take root in the hard resisting structures of a hand or a foot, there germinate, and become developed into forms so entirely abnormal as those figured; and having completed the work of destruction amongst the soft and hard tissues, find their way once more to the surface, through sinuses and canals of their own making, rather than continue a damaging course in a soil at once congenial and in every way suited to feed upon. Certainly such a selecting parasite transcends our previous experience of analogous organisms. It is curious to observe also the power of selecting one foot or limb rather than the other, the right foot or the right hand; it gives a preference to the male sex rather than the female in a country where the feet of both sexes are equally exposed to the poison. In exceptional instances fungus forms no part of the diseased mass. At page 9 we read the examination of a foot gave negative results—"only red grains, like Cayenne pepper, crystalline bodies, and oil globules were found; nevertheless, from these bodies a red mould was grown." In another specimen, preserved in spirits, mould was successfully cultivated when sown on rice paste; and remarkable enough, the mould observed to be developed under these varying conditions was identified as one and the same kind of fungus. It is scarcely possible to believe that fungus spores preserved in spirits retain their vitality.

Indian medical men who have seen a great deal of Madura foot disease do not concur with Dr. Carter as to its "symmetrical and consentaneous character." Dr. Collas, for instance, says: "By the expression endemic degeneration of the bones of the foot, I mean a localisation in one foot of a benign diathesis, which develops itself in a marked manner, more frequently in men than in women, and is characterised by the production of a peculiar element, which, occupying the place of the bones of the foot, ends by inducing their destruction. It is impossible that this malady can be anything else than a tumour, of which the pathological element is made up of myeloplaxes, produced by a diathesis *sui generis*, and by hypergenesis, i.e., in a proportion much exceeding that encountered in the substance of the bones in a normal state." It is quite clear then that Collas does not look upon the fungus, when present, as the proximate cause of the disease, but rather as an incidental attendant on a pre-existing or contemporaneous morbid process.

Some discrepancy of opinion also seems to prevail among observers equally competent to interpret the microscopical characters of abnormal products. Portions of a Madura foot were submitted by Dr. Ballingall to the late Professor Quekett, and he entirely "failed to come to any definite opinion of their character." Cohn, Moxon, Cunningham, Lewis, the editor of the *Indian Medical Gazette*, &c., have been equally unsuccessful in the detection of fungus particles. Dr. Carter's explanation of this is, that at a certain stage of the disease, "its characteristic structure is lost, the fungi having undergone transformation, and become a nucleus of crystallisation." Mr. Hogg, in a paper contributed to the "Royal Microscopical Society Transactions," June, 1871, says: "A prolonged and careful microscopical examination only gave negative results, so far as fungi were concerned, and a chemical analysis of the 'fish-roe-like bodies' yielded only 'fatty

(a) So lately as October last we observe in *The Indian Medical Gazette* the particulars of a typical case of Madura-foot disease. The brief history, given by Dr. Cleghorn, of Allakabad, under whose care the patient came, is as follows: "A Brahmin, aged 45, residing in a village in Gwalior, by occupation a cultivator, first noticed a small swelling on the upper surface of the left foot. No suspicion of guinea worm, injury, or other exciting cause. The chowkidar of the village, who had lately come from another zillah, had a similar swelling of the foot, but no permanent resident of the village was affected."

"The foot presented the following appearance: The swelling commenced rather abruptly over the first row of tarsal bones, gradually increasing till it assumed an almost globular form near the distal half of the metatarsal bones. It was more rounded and protuberant on the plantar than on the dorsal aspect of the foot; the first two phalanges of the toes were absorbed into the swelling; the whole surface, more particularly the dorsal, was studded with well-defined elevations, oval in shape, varying in size from a split pea to a four anna piece; the skin in the centre of these elevations was thinned, but no breach of surface was detected; pain was not a prominent symptom, the patient simply complaining of a dull heavy feeling in the part. The foot was removed at the ankle-joint by Syme's operation, with a successful result."

The following were the appearances observed on dissection:—

"The projections on the surface contained dirty purulent matter and numerous roe-like bodies; the soft tissues of the foot on longitudinal section appeared as a dark coloured disorganised mass, containing irregular shaped cavities full of dirty coloured pus and roe-like particles; there was no tunnelling, such as is described in Aitkin's 'Practice of Medicine'; the black matter did not extend posteriorly beyond the first anatomical row of tarsal bones, and the disease was limited by a well defined margin, which, though irregular, did not blend with the prolongations into the contiguous healthy tissue. The blackened disorganised tissues adhered firmly to the periosteum, but the bones and cartilages of all the joints appeared to be perfectly healthy."

"Numerous microscopical examinations were made of the black matter, the roe-like particles, the purulent fluid, the textures contiguous to the diseases, the cartilages, and the cancellous texture of the bones, but no fungus elements were found. On boiling portions of the black mass in liq. potassæ, and teasing them with needles, mycelial looking fragments were noticed on two occasions, but these were understood to be due to splitting of the fibrous texture. Large fat cells of uniform size were in great excess and seen everywhere, and in appearance were not unlike the spores freed from their contents, depicted in Aitkin's 'Practice of Medicine,' in the article treating of this affection."

matters, phosphate of lime and iron, carbonate of lime, and some organic matter, albumen or fibrine." Mr. Berkeley, whose opinion strongly favours Dr. Carter's views, writes: "The little granular bodies are so closely involved in stearine that their germination is scarcely possible."

Certainly the earlier drawings of the fungus particles, serve rather to increase a distrust felt as to the fungoid nature of mycetoma than otherwise. It is impossible to conceive anything more misleading than the figures that accompany an early paper published in the *Intellectual Observer*, while the drawings in the "Pathological Society's Trans." are scarcely less creditable, or likely to clear up a difficulty. Dr. Carter, however, now makes ample amends for the shortcomings of those who failed in their attempts to represent *Chionyphe Carteri*; but withal, we venture to think that, on reflection, our author will scarcely insist that he has conclusively established the parasitic nature of the Madura foot disease of India. The exceptionally small proportion of fungus particles in any of the specimens we have examined point to but one conclusion—that the fungus must have been an extraneous growth subsequently and accidentally introduced into the diseased mass. We, however, unhesitatingly affirm that Dr. Carter, by the publication of this monograph, has done good service to the profession. His book throughout bears ample evidence of an immense amount of pains-taking research to clear up the more obscure points of the disease, and to him we look for a more extended knowledge of a remarkable affection which "is not carious, strumous, or myeloid, but a veritable parasitic disease."

We must add that Dr. Carter's volume is a valuable and handsome contribution to medical literature, and will amply repay perusal.

## EPIGRAM.

### DE CREMATIONE.

Ἐν δὲ πυρρὶ θανάτῳ νεκρὸν θέσαν, ἀχόμενοι κῆρ.  
*Iliados* xxiii. l. 165.

CHIRURGUS quidam exuri vult omne cadaver,

Ut cito, quod vermis tardius, ignis agat.

Hic querit semper lapidem, æternumque requirit—

*Calculus* est hodie; in sucla—cenotaphium.

### CREMATION.

THOMPSON to burn our corpses would persuade us,

To promptly pay the elements that made us;

The lithic Surgeon's aim is clearly shown—

Alive, a calculus; defunct—a stone.

W. BOYD MUSHET, M.B. Lond.

## Medical News.

**University of London.**—The following is a list of the candidates who passed the recent second M.B. examination:—

### First Division.

Braunfoot, Henry Seymour, Guy's Hospital.

Crocker, Henry Radcliffe, University College.

Duncan, Andrew, King's College.

Duncan, Peter Thomas, University College.

Eastes, Thomas, Guy's Hospital.

Gould, Alfred Pearce, University College.

Harris, Vincent Dormer, St Bartholomew's Hospital.

Nicholson, Arthur, King's College.

Rigby, James Arthur, Guy's Hospital.

Sturge, William Allen, University College.

Whittle, Edward George, University College.

### Second Division.

Ashby, Henry, Guy's Hospital.

Boach, Fletcher, King's College.

Briggs, George Chapman, King's College.

Davies, David Arthur, University College.

Houghton, Walter Benoni, University College.

Morley, Thomas Simmons, Guy's Hospital.

Moss, Herbert Campbell, King's College.

Percival, George Henry, Guy's Hospital.

**Astley Cooper Prize.**—The next triennial prize of £300, under the will of late Sir Astley Cooper, Bart., will be awarded to the author of the best essay or treatise on "The Anatomy, Physiology, and Pathology of the Sympathetic Nervous System." The condition annexed by the testator is, "That the essays or treatises to be written for such prize shall contain original experiments and observations, which shall not have been previously published; and that each essay or treatise shall (as far as the subject shall admit of) be illustrated by preparations and by drawings, which preparations and drawings shall be added to the Museum of Guy's Hospital, and shall, together with the work itself and the sole and exclusive interest therein and the copyright thereof, become henceforth the property of that institution, and shall be relinquished and transferred as such by the successful candidate." And it is expressly declared in the will "that no physician, or surgeon, or other officer for the time being, of Guy's Hospital or of St. Thomas' Hospital, in the borough of Southwark, nor any person related by blood or affinity to any such physician or surgeon, for the time being, or to any other officer for the time being in either of the said hospitals shall at any time receive or be entitled to claim the prize." But, with the exception here referred to, this prize is open for competition to the whole world. Candidates are informed that their essays, either written in the English language, or if in a foreign language, accompanied by an English translation, must be sent to Guy's Hospital on or before January 1st, 1877, addressed to the Physicians and Surgeons of Guy's Hospital. Each essay or treatise must be distinguished by a motto, and be accompanied by a sealed envelope containing the name and address of the writer. None of the envelopes will be opened except that which accompanies the successful treatise. The unsuccessful essays or treatises, with the illustrative preparations and drawings, will remain at the Museum of Guy's Hospital until claimed by the respective writers or their agents.

**The Hospital Saturday Fund**—At a meeting of the Council, on Saturday last, it was finally decided, after discussion, that the Report be circulated amongst the members, and be considered on the 9th proximo. In it a description was given of the various agencies employed on the 7th October, and the respective results. A number of boys were stationed with boxes in various public thoroughfares; and on Hospital Saturday several tables, presided over by ladies and gentlemen, were placed in the streets for the purpose of receiving public subscriptions. A sum of £258 14s. was obtained by the latter means at a cost of something over £30. The employment of the boys was not so successful, only £60 being collected, and the expenditure in wages and uniform, being more than 50 per cent. A portion of the money spent in printing subscription cheques was also thrown away, for this mode of collection proved unsuccessful. As the whole of the boxes have not yet been collected, the amount received by this means cannot be stated, but the average so far is about 7s. per box, collected at a cost of about 2s. each. A sum of £300 was raised for the fund by the performances given at Drury Lane, Adelphi, and the Princess's Theatres, and £75 by the promenade concerts at the Agricultural Hall; out of this, H.R.H. the Duke of Edinburgh gave £25. So far the total contributions barely reach £8,000, and the expenses will not fall short of £1,500. Some members of the Council deplored the paucity of contributions from the working classes; but this was attributed to the fact that they were of all others, the most suspicious, and would not, until they were satisfied with the *bonâ fides* of an undertaking, give it their support. We wonder how long it takes to satisfy the masses of the *bonâ fides* of hospitals which have been established centuries for their benefit! besides which, the Hospital Saturday Committee have had twelve months to satisfy them upon the point. The fact is, that so long as they can get medical advice and medicine for nothing they will prefer to spend their spare cash in the public-house.



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## Advertisements.

**ASTLEY COOPER PRIZE.**—The next Triennial Prize of £300 will be awarded to the Author of the best Essay or Treatise on "The Anatomy, Physiology, and Pathology of the Sympathetic Nervous System." Candidates are informed that their Essays, either written in the English language, or if in a foreign language accompanied by an English translation, must be sent to Guy's Hospital on or before January 1st, 1877, addressed to the Physicians and Surgeons of Guy's Hospital.

Each Essay or Treatise must be distinguished by a motto, and be accompanied by a sealed envelope containing the name and address of the writer. For further particulars regarding the other conditions to be complied with, *vide* the printed forms, which may be obtained on application at the Hospital.

### A N EARNST APPEAL to CHRISTIAN CHARITY.

A Lady, daughter of an officer, now deceased, but who formerly held a high position in the British Army, and served his country at home and abroad for 54 years, is at present reduced to a state of the deepest distress, with four children, in consequence of the lengthened illness of her husband.

This illness, contracted abroad, has incapacitated him from supporting his family, and obliged him, through dire necessity, to seek refuge in one of the Dublin Hospitals, where he lies at present a helpless invalid.

The deceased Officer referred to was a Doctor in the British Army, and at the time of his death held the position of Inspector-General of Hospitals; his daughter, one of a large family, is precluded from obtaining relief from the Medical Benevolent Fund of Ireland in consequence of being married; whilst her husband is at present a patient in the Adelaide Hospital, and we hope soon to procure his admission into the Hospital for Incurables. For these reasons we ask your kind attention to this appeal. The smallest subscriptions will be received and acknowledged by

M. A. WARD, M.B., 1 Rathmines Road, Dublin.

JAMES WHITE, Rector of St. Thomas's,  
15 Middle Gardiner Street, Dublin

### TRINITY COLLEGE, DUBLIN.—SCHOOL of PHYSIC IN IRELAND.

Pursuant to the provisions of the School of Physic Act, 40 Geo. III., ch. 84, and Amendment Act, 30 Victoria, ch. 9: Notice is hereby given that the Professorship of Chemistry in the School of Physic became vacant on the 3rd of OCTOBER, 1874; and that on SATURDAY, the 80th JANUARY, 1875, the Provost and Senior Fellows of Trinity College will, at the hour of twelve of the clock (noon), in the Board-room of the said College, proceed to elect a Professor of Chemistry, in the room of Professor James Apjohn, resigned.

The Emoluments and advantages of the Professorship consist of the following items:—

- 1st. A fixed salary of £400 per annum.
- 2nd. An additional payment of £100 per annum, on condition that the Professor shall give free Laboratory instruction to such Senior Sophisters as shall be nominated by the Bursar.
- 3rd. Fees for Lectures and Laboratory Instruction, to be regulated from time to time by the Provost and Senior Fellows.

N. B.—The fees as at present arranged are—

Medical Lectures (Winter Course) . . . £3 3 0

Medical Practical Course (Summer) . . . £5 0 0

Laboratory Course (eight months) . . . £10 10 0

Graduates in Arts, and Students whose names are on the College books, are admitted to the Medical Courses on payment of half the above fees.

- 4th. The Professor shall have the use of the College Laboratory for analyses bearing on Medical Chemistry, and approved by the Provost and Senior Fellows, such as Medical and Medicolegal investigations, and analyses connected with purposes of Public Health.

All Candidates are required to send their names, with the places of their education, the Universities where they have taken their Medical Degrees, and the places where they have practised, to the Registrar of Trinity College, Dublin, and the Registrar of the King and Queen's College of Physicians in Ireland, on or before Saturday, the 23rd January, 1875.

Candidates wishing for further information are requested to communicate with the Rev. Dr. HAUGHTON, Medical Registrar, Trinity College Dublin.

ANDREW S. HART, Registrar, T.C.D.

J. MAGEE FINNY, Registrar, K. & Q.C.P.

**EAST LONDON HOSPITAL FOR CHILDREN, and DISPENSARY for WOMEN, Ratcliff Cross, E.**—The office of RESIDENT MEDICAL OFFICER to this Charity is now vacant, and applications are invited for the post. The candidate must be unmarried and a fully-qualified practitioner in Medicine and Surgery. There are 35 beds in the Hospital, and an average attendance of from 100 to 120 out-patients daily. The salary is £60 per annum, with board, lodging, and washing.

Application to be sent to the Secretary at the Hospital on or before Thursday, the 19th inst., at 12 o'clock, who will supply a copy of the rules and any other information required.

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Consulting Physician:

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Number of visits paid by such patients	...	...	...	124
Number of patients within the Infirmary	...	...	...	163
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"SALUS POPULI SUPREMA LEX."

WEDNESDAY, NOVEMBER 25, 1874.

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## Original Communications.

### A Course of Lectures

ON THE

#### NATURE AND TREATMENT OF DEFORMITIES OF THE HUMAN BODY,

DELIVERED IN THE MEATH HOSPITAL, DUBLIN, BY  
LAMBERT H. ORMSBY,

Surgeon to the Hospital, and Demonstrator in the School of Surgery  
Royal College of Surgeons in Ireland.

LECTURE VIII. (*continued from page 415.*)

#### DEFORMITIES OF THE JAWS.

THE consideration of the deformities of the face would not be complete without making some allusion to the above. Tumours affect both the upper and lower jaw alike, and when of a large size produce perceptible deformity. To enter into the consideration of the consistence and character of the various tumours seen in the upper and lower jaw would be far beyond the limits of these lectures, and I will merely content myself with mentioning by name the most important—viz, 1, Osseous; 2, Vascular; 3, Fibrous; 4, Sarcomatous; 5, Enchondromatous; 6, Cystic; 7, Mucous Polypi; 8, Carcinomatous; 9, Melanotic; and 10, Myeloid Tumours.

These comprise nearly all that are met with, and occasionally attain an enormous size, giving the person a most hideous and revolting appearance. Tumours are also found springing from the alveolar process of the upper or lower jaw, termed epulis, and they either grow between or from the stump of a decayed tooth or teeth, implicating the osseous walls of the jaw, and is divided into two varieties, the simple or benign, and the malignant or cancerous. These are merely mentioned for the sake of the deformity they produce, and the treatment does not

differ materially from the treatment of tumours elsewhere. The simple is a fibrous tumour, and is removed by excision, taking care to remove the tumour in its entirety, or it will likely return. The malignant requires the same treatment, but a great deal more of the parts have to be removed, as the jaw is much more extensively implicated. Next in frequency, producing deformity, are the various changes that take place in the jaws, either due to inflammation, abscess, periosteal thickening, or necrosis, which is a disease that nearly always causes the face to assume a permanent swollen and deformed condition; the general assigned causes are—blows, salivation from mercury, exposure to the fumes of phosphorus in the manufacture of lucifer and other matches; again, it has occurred idiopathically, where no cause whatever could be ascertained for giving rise to the disease. Necrosis may destroy the whole jaw, or in part, and the treatment here does not differ from the treatment of necrosis elsewhere, except that any operative procedure for the removal of dead bone must be so performed as to leave behind as little deformity as possible, and any sequestrum to be removed should be extracted from the inside of the mouth, if possible, which, however, is not in all cases an easy matter. The next deformities we will consider are due to enlargements of the antrum, which may arise from an accumulation of fluid, either consisting of—1. A glairy mucus, something like what is contained in a ranula, commonly called dropsy of the antrum; or it may be due to—2. Suppuration, and contain pus; 3. Or it may be due to some tumour or abnormal growth arising from the walls of the cavity. Whatever it may be, the walls of the antrum very soon bulge out, and become prominent and perceptible externally, the patient complaining at the same time of dull aching pain, attended with occasionally throbbing, perhaps rigors and fever, and it may so bulge internally towards the nostril as to stop it up, and prevent air to pass through, or to pass with difficulty. This deformity can be easily removed by timely operation and judicious treatment—viz, the removal of either the bicuspid or molar tooth corresponding to the inferior part of the antrum, and pushing a strong trochar or stout pair of scissors through the empty socket of the tooth removed up into the floor of the cavity: the matter will soon be thus

evacuated, and the antrum should then be syringed out with warm water.

We now come to the various tumours and growths before mentioned arising from the jaws, which are numerous and important, inasmuch as they produce distressing deformity, and their complete removal requires perhaps more skill and patience and anatomical information than any other operation in the whole scope of surgery. And for an accurate account of the various tumours of the jaws—the diagnosis, prognosis, and operative treatment of such, I refer you to the most instructive and elaborate work I know on the subject, written by Mr. Christopher Heath, (a) in which work you will see a great number of faithful woodcuts depicting the various forms of growths, and also the hideous and distressing appearance the face assumes from the consequence of such abnormal enlargements.

#### CLOSURE OF THE JAWS.

Such cases are occasionally met with, quite independent of Trismus, or *locked jaw*, as a symptom of tetanus, which, as a matter of course, requires a separate consideration, and is therefore beyond the limits of this work. Mr. Heath mentions that spasmodic closure of the jaws is nearly always caused by eruption of the wisdom teeth in the lower jaw, owing to want of room between the second molar tooth and the ramus of the lower jaw; the pressure which it exerts produces irritation to the parts surrounding, setting up tonic spasm in the masseter and internal pterygoid muscles, which keep the jaws spasmodically closed.

The spasmodic closure is met with at about the time the last molar tooth makes its appearance, and generally passes away when its complete eruption has taken place and the irritating causes removed. The jaws, however, may be divaricated by a screw gag, or, under chloroform, to forcibly separate the jaws asunder, and insert a wedge of wood, or other hard substance. Dental surgeons recommend the extraction of the second molar tooth, or, if the last can be reached, to remove it instead. Closure of the jaws, or inability to open the mouth to its full extent, may come on from inflammation and abscess of the gum.

Permanent closure of the jaws is of a still more important nature to the practical surgeon than the preceding, as it generally arises from a different set of causes, such as—1. Sloughing of the cheek, the result of cancrum oris; 2. Profuse salivation; 3. Inflammation and adhesion of the gums, with portion of the cheeks, after operation for removal of necrosed bone; 4. From wounds of the cheeks or other traumatic causes; 5. Disease and impairment of the temporo-maxillary articulation, ending in false or true ankylosis; 6. The immobility may be caused by a bony ridge or osseous band connecting the lower jaw with the upper.

Permanent closure of the lower jaw, then, will be found more frequently to arise from—1. Contraction, adhesion, and cicatrization of the substance of the cheek, within or without the mouth, consequent on sloughing of the tissues in cancrum oris, and burns or other traumatic causes. 2. From change in the temporo-maxillary articulation, producing either true or false ankylosis. In either form there is at times complete closure of the jaws, so much so that neither patient nor surgeon can separate them, even when considerable force is applied.

For permanent closure of the jaw, for the first set of causes, simple division of the contracted soft tissues and the masseter has been often performed; but contraction comes on again, and the jaws in some time are closed nearly as bad as before. Professor Esmarch, of Kiel, recommends an operation which consists in removing a wedge-shaped piece of the lower jaw in front of the insertion of the masseter muscle, say a piece measuring a quarter of an inch on the upper margin and half an inch on the lower margin. This is done at one side, and enables that half of

the jaw to be separated from the upper, although the other side remains still in its abnormal position. Professor Rizzoli, of Bologna, proposed an operation for simple division of the lower jaw, to effect the same object, from the inside of the mouth, and not requiring any external incision at all. This division was made with a powerful bone forceps. This operation labours under the disadvantage of not being permanent, for the bone unites at the seat of division, and the case becomes as bad as ever. Full information of these operations is given in Mr. Heath's work on the jaws.

#### ANCHYLOSIS OF THE LOWER JAW.

True, or osseous ankylosis, is very rare, although cases are recorded as having occurred from time to time, and of complete osseous union of the lower jaw to the temporal bone. In Guy's Hospital Museum there is a skull of a negro who had complete osseous ankylosis of the temporo-maxillary articulation.

The history of such cases are necessarily very obscure, and few are ever recognised until the osseous union is found to be completed, and then treatment seems to do very little for such cases unless something very heroic is put into practice. However, a mild attempt ought to be made to try and relieve and remedy the deformity, endeavouring to set up passive motion with gags and wedges, and gradual force applied for the purpose of opening the jaws is recommended; but it is found that the jaws become just as closed as ever when treatment is relinquished; dividing the ramus through the mouth as high up as possible with a bone forceps and establishing a false joint; the neck of the jaw has been also broken with a chisel and hammer, and a false joint established, and is recorded as being successful.

*False Ankylosis*, or fibrous adhesions about the joint, is of more frequent occurrence than the preceding; it comes on from a variety of causes, among which I may mention cold, scrofulous disease, syphilitic synovitis, and chronic rheumatism. Arthritis may come on after fever, scarlatina, measles, and acute rheumatism, and in some cases stiffness occurs in this joint without any assignable cause. I had a very successful case under my care in the Meath Hospital, of a little boy, set. 10, of very healthy-looking appearance, who had his jaws closed for two years; the teeth were as close as possible, and the only way he could take nourishment and feed himself was by an interval that was made by the loss of some teeth in the upper and lower jaw, and he could not chew any solid food, and had to merely be satisfied by taking fluids by suction, or, if any solid food, it had to be mashed, or cut up very finely. He had been subjected to a variety of treatments before I saw him, but the stiffness and immobility did not disappear. After admission into the hospital I made a careful examination of the jaws, and found although the jaws were so tightly closed, when they were grasped firmly by the hand, and an endeavour made to set up movement, a slight yielding was perceptible. I then determined to put him under chloroform, which I did, and with some force I separated the jaws nearly a quarter of an inch. I then inserted the blades, armed and covered with lint, of a screw gag, and when inserted well between the teeth I turned the screw, which had the power of divaricating the blades. On that occasion I was not anxious to accomplish all in the one operation, but inserted a small wedge of soft wood between the teeth, when I had separated the jaws a little more by the motion of the screw, and put the lad to bed, ordered a nice saline purgative draught, and a cold evaporating lotion to be applied on lint behind and below the ears, over the temporo-maxillary articulation. On the next day after the operation there was not much inflammation or pain present, and on the third day I applied the gag again, and separated the jaws still more, and at intervals of three days to a week I attempted separation with the gag, so that at the end of six weeks I had the jaws completely separated, so as to enable him to eat solid food and chew with the greatest ease, and since that time I have heard of him being perfectly well. The reason I took my time about the case was to prevent

(a) "Injuries and Diseases of the Jaws," being the Jacksonian Prize Essay of the Royal College of Surgeons of England, 1867. By Christopher Heath, F.R.C.S., Surgeon to University College Hospital, &c. London: J. and A. Churchill, 1872. Second Edition.

any likelihood of extensive inflammation arising due to tearing or sudden breaking up of the adhesions, which would stop all treatment for the time. The child's mother could not give any reason as to the cause of this closure, except that one day, about two years ago, he knocked his chin against a desk at school, but did not complain of any pain at the time, and since that the stiffness came on gradually.

## CHOLERA: ITS ÆTIOLOGY, CONTAGIOUSNESS, AND TREATMENT.

By WM. BOYD MUSHET, M.B. Lond., M.R.C.P.,

Late Physician to the North London Hospital for Consumption, formerly Resident Physician at St. Marylebone Infirmary.

### ÆTIOLOGY.

(Continued from page 371.)

Most authorities agree that cholera cannot become epidemic except under certain conditions of the atmosphere. Dr. Gavin Milroy, Sir Thomas Watson, Dr. Bastian, and Professor Maclean admit an epidemic constitution. We can no more clearly explain why cholera should be, or be not epidemic, and why its epidemic features vary, than why typhus, small-pox, scarlet fever, measles, and influenza should be periodically epidemic, and alter so greatly in prevalence and severity. Why does scarlatina epidemically assume a malignant type? Why does it more greatly prevail at special seasons? Why did measles appear about the eighth century? And why do diseases at times assume a peculiar character, as during the "furunculoid" epidemic nearly two decades since? Scarlatina is always more or less rife, but is not malignant; diarrhoea always is more or less prevalent, but not cholera. Is there any pathognomonic or diagnostic feature, or line of demarcation, to distinguish diarrhoea from premonitory cholera? Diarrhoea graduates imperceptibly into the most malignant forms of cholera. Cholera may be sporadic, slightly or severely epidemic, or almost pandemic—analogueous to other diseases which equally vary in intensity, but are specifically identical. Thus, measles may be *mild* or *black*; scarlatina mere indisposition or a pestilence; small-pox may be discrete and *benignant*, or *malignant* and hemorrhagic. Fever even may be comparatively mild, or accompanied with buboes and sloughing, even in England, and it may assume almost the characters of plague. Cholera and diarrhoea differ in degree in intensity, but they must be held to be, in my opinion, fundamentally and pathologically the same disease. The profession indirectly confesses the identity of diarrhoea and cholera, as ordinary cases of diarrhoea are denominated English cholera, and in the *Lancet* (September, 1854) the necessity of calling every case of diarrhoea cholera is imperatively insisted on. The Committee of the Board of Health, also in the same year, considers that "when cholera and diarrhoea prevail together epidemically they are (with differences of degree) the same disease." In returns of deaths from cholera, deaths from diarrhoea are always included and placed side by side. Why is this if the affections are distinct, and diarrhoea is unconnected with cholera. Does not one practitioner call many of the severer forms of diarrhoea cholera, which another designates choleraic diarrhoea? It is said that cholera may, and does kill, without the supervention of diarrhoea, and that the latter is only a local pathological expression, or anatomical character, so to speak. Dr. MacLoughlin believes such cases to be mythical, and they are, to say the least, infinitely rare, and there is no authentic case, I believe, where the stomach and intestines have been found free from excretions, and in which there has been absence of diarrhoea and vomiting from the attack to death.

The theory of a septic animal poison is in accordance with the origin and mode of propagation of the disease, as on what other hypothesis can we explain its appearance in distant parts after the visit of vessels from infected

countries, or its development on shipboard far from any port? May it not, as M. Guérin believes, arise *de novo*? as it originally did in India; and may not the apparent importation be merely a coincidence, occurring at a time when the epidemic influence exists, and is capable of developing the disease in hitherto unaffected quarters? And when appearing in mid-ocean, is it not due to septic matters collected in the confined limits of the vessel, and rendered active by the ship traversing in its passage the epidemic atmosphere which is passing from one continent to another.

Of course, those who affirm that the epidemic is always the result of importation, the product of contagion, or a special invisible zyme, sometimes dormant, sometimes active, equally affirm the absolute non-connection, non-identity of diarrhoea and cholera. With such, although the symptoms in cholera point most obviously to the intestinal tract, the disease is regarded to be the result of a constitutional poison manifesting itself by local effects; whilst diarrhoea is wholly referable to local, not to systemic causes; and they explain the reason of diarrhoea assuming choleraic features by the fact of diseases being frequently modified by the prevailing epidemic, and assuming more or less of its impress and character. But I rather regard cholera as diarrhoea invested with peculiar malignancy from operation of an epidemic influence, as no division can be practically established between simple diarrhoea and the most virulent algide cholera during the existence of an epidemic.

Dr. Charlton Bastian ("Epidemic and Specific Contagious Diseases"), with whose views I coincide, believes that cholera, typhoid, typhus, plague, relapsing fever, influenza, cerebro-spinal meningitis, erysipelas, pyæmia, puerperal fever, glanders, hydrophobia, and syphilis may be generated *de novo*. He also believes that the several (contagious) specific diseases may have at times a spontaneous origin. He utterly rejects the "germ" theory, as there is no evidence of the presence of germs in the blood or other fluids of the body, and the theory demands a belief in the existence of about twenty different kinds of organisms, never known in their mature condition. He thinks epidemic diseases "are caused and propagated by chemico-physical agencies, and not by multiplication of living units."

Mr. Jonathan Hutchinson, too (*Brit. Med. Journal*, Feb. 7th, 1874), after an immense experience, believes that the several hospital plagues—viz., septicæmia, pyæmia, erysipelas, and hospital gangrene are frequently of autogenetic origin, though they subsequently spread by contagion.

During visitations of cholera, numerous cases of severe or choleraic diarrhoea occur and recover—many without treatment—not verging into collapse, explicable by the constitutional vigour of those affected, or by the mildness of the septic agency, or non-existence of sufficient epidemic influence, or a combination of several of these operations antagonistic to the development of the malignant form. It is said that there is greatly increased prevalence of diarrhoea at cholera periods; but are the cases, though doubtless more numerous, apparently augmented in consequence of public apprehension and more frequent application of patients for medical assistance? Cases wherein the algide symptoms appear to be almost unpreceded by premonitory diarrhoea are to be explained by the antecedents of the patient, as age, exhaustion, privation, &c., rendering him peculiarly prone to the reception of the poison, which, on such occasions, may be of profound malignity and intensity.

In a large proportion of cases, and even during a local outbreak of cholera, impurity in the water may be adequate to explain the propagation of the disease, but it is altogether inefficient to account for the origin, the *causa causans* of the pestilence. Water only proves a source of disease when loaded with animal impurities, under which circumstances it acts by introduction of septic materials into the system during the persistence of the epidemic influence.

With reference to this point, Dr. Sutherland observes, in his Report to the Board of Health in 1854, that "it is believed by some, that the water which induces cholera

contains the specific poison of cholera in it, probably derived from the evacuations of cholera patients; while others believe there is no sufficient evidence of this being the case, and they consider all the facts go to prove that water containing putrescent organic matter acts as a very powerful predisposing cause of the pestilence in a similar way as does putrescent organic matter introduced into the system by the atmosphere or by food, but not as a specific poison." In a like manner, recent disclosures advise us that vitiated milk may be a vehicle of septic poison.

According to such testimony, cholera requires *two* factors for its generation—viz., septic material *plus* the epidemic influence. This latter, the epidemic influence, seems to be indispensable in the causation of the disease, as dirt, filth, and overcrowding are inoperative *per se*, otherwise cholera would be a constant, not an occasional scourge. On the contrary, zymotic diseases, though varying in prevalence, are never altogether absent from the community. This epidemic influence, physically inappreciable (?) appears to be only active in the vicinity of centres of putrefaction. It would appear to be a meteorological or atmospheric condition, itself variable in energy, even when existent, diffusible according to the direction of the winds, temperature, &c.

The disease is most rife, most malignant, in situations where there is greatest aggregation and evolution of septic animal matters, low level and stagnation of the atmosphere almost invariably contributing to intensify their operation. After a time, the epidemic influence may be dissipated or exhausted, but it appears to be capable of continuance or continued generation, as cholera is reported to be endemic in the Delta of the Ganges, and also amongst the Russian troops in the Caucasus.

The history of plagues and pestilences obviously establishes their intimate connection with the neglect of sanitary laws, and although there may be requisite a peculiar epidemic constitution of the body or of the atmosphere, disease is unproducible without the presence of filth, dirt, refuse, impure water, organic decomposition, or neglect, defiance, or violation of hygienic measures. Dr. Roupell laid great stress on animal effluvia, defective sewerage, and intramural cemeteries, and Dr. Parkes says, that "cholera is most violent and common in the dirtiest and densest parts of the town, less severe among the English soldiers, and not at all seen in the houses of the English residents scattered about." Mr. Grove concurs that diseases amongst the poor owe much of their inveteracy to the accumulation of effete organic matters about their clothes and persons.

The septic poison of cholera, which is sufficient to produce every variety or degree of symptoms, from simple diarrhoea to overwhelming collapse, does not materially interfere with the sensorium or the muscular apparatus, inasmuch as there is no impairment of the vital integrity, no specific poisoning of the blood. There is no exaltation or exaggeration of nutrition, no increased disintegration of tissue or organic change, as in fever, but a *diminution down to a total arrest of the nutritive operations*; so that there are no deleterious elements in the circulation. At the outset, the irritation of putrescent matters in the alimentary canal is most probably local, accompanied by more or less profuse shedding of epithelium; though later, it is likely that an impression is exerted on the sympathetic nerve of the abdomen, which may secondarily become involved. Dr. Carpenter admits that nutrition, secretion, and other vital processes may take place independent of nervous influence, and the enormous surface of the denuded intestines may passively allow the copious transudation which ensues. Still, the nerves greatly influence secretion, and it is a remarkable fact, that notwithstanding the blood is universally dark in the vessels, I distinctly noted, in two cases of abortion in which the subjects died during collapse, that the hæmorrhage from the uterus was arterial, bright red in colour. The functions of the placenta, which are very active and important, are performed, it will be remembered, entirely without the assistance of the nervous system.

I now pause to discuss categorically the widely disseminated

doctrines of Dr. George Johnson, who occupies a most conspicuous position amongst recent writers on cholera. It is essential, therefore, to be somewhat discursive, and afford a special *résumé* of the views of this physician, with the arguments which may warrantably be urged against the soundness of his conclusions.

According to Dr. Johnson, cholera is the result of a material and portable poison, capable of conveyance from place to place, and of communication from person to person. It may enter through the lungs or alimentary canal.

Water is a main vehicle by which the poison enters the system.

It is absorbed into the blood.

The period of incubation is usually from one to three or four days.

The discharges are a conservative effort to expel the poison and its products, analogous to the eruption of small-pox and the diarrhoea of typhoid fever.

The discharges, when abundant, may be so copious as to kill.

They bear, however, no direct relation to the degree of collapse, and they are not the essential or chief cause of collapse, as collapse and death may occur without discharges, and with but scanty secretion into the bowels.

There is impeded circulation through the lungs, as the pulse is small or absent; there is fulness of the veins and lividity, and, after death, the left side of the heart is empty; the right side, the pulmonary artery, and the large veins distended; the lungs anæmic, light in weight. The explanation is, there is contraction of the minute pulmonary arteries—a primary asphyxia, a secondary apnoea. Dr. Johnson believes the cause of contraction of the walls of the minute pulmonary arteries is the poison in the blood, which acts as an irritant upon the muscular coat of the vessels, and the relative deficiency of carbonic acid in the blood he explains by the fact that the small current of blood through the pulmonary capillaries involves a correspondingly diminished formation of carbonic acid.

(To be continued.)

## REPORT ON SYPHILIS.

By C. R. DRYSDALE, M.D., M.R.C.P.L., F.R.C.S.E.,  
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DR. FOURNIER ON TERTIARY SYPHILIS OF THE ANUS  
AND RECTUM.

DR. ALFRED FOURNIER continues his lectures at the Lourcine, as follows (*France Médicale*, October 10):—

I propose to speak to you to-day, gentlemen, about tertiary lesions of the anus and rectum, and those of the anus first of all.

*I. Tertiary Lesions of the Anus.*—Tertiary lesions of the anus are infinitely rarer than those of the generative organs, about which I have spoken in our last lecture. They occur, however, with a certain amount of frequency which commends them to our attention.

Thus, lesions consist especially in accidents of ulcerative form. The gummy form is not observed in the anal region, save in truly exceptional cases.

Some words will suffice for the description of these two orders of accidents, for they present themselves here with their habitual characters, and owe only to the conditions of their position the peculiarities of which I am about to speak.

*1. Ulcerative Syphilitic Affections.*—Ulcerative anal syphilitic affections develop themselves either exactly at the level of the mucous ring of the anus, or more frequently at the level of this mucous ring, at the same time as on the peripheric cutaneous region.

They are here what they are elsewhere, that is to say, ulcerations, more or less hollowed out, more or less extensive, variable in aspect and colour, and presenting



for the most part a yellowish base, or vinous red hue, secreting rather abundantly a purulent sanious matter, which is sometimes striated with blood.

The sole peculiarity they present worthy of remark consists in the configuration they affect. Situated on a dusky region, with convergent radiating folds, they cannot evidently lend themselves to the regularity of form which is commonly observed in them on flat surfaces. They obey naturally the conditions of the ground on which they are produced, and then one of two things happens :

Either they are, when seated on the margin of the anus, of lengthened form, following the direction of the folds of the region. They are more or less extended in surface ; sometimes they occupy a rather considerable portion of the margin of the anus ; more frequently they are reduced to the proportions of a simple fissure, or what is commonly called a *rhagade*. Frequently the parts on which they rest become symptomatically inflamed, and this engorges, thickens, and hardens the anal folds, and transforms them into coarse projecting folds.

In this case, however little extended the ulceration may be, it takes on a wavy form, in this way, that it is alternately raised in prominent eminences and depressed in the furrows between. If, on the other hand, it is more restricted and limited to the bottom of the furrows, it is then hidden by the projection of the nodules which cover it, and sometimes even completely dissimulated by the reciprocal touching of these masses, so as not to be perceived until the folds are forcibly held asunder.

Or, again, seated at the very level of the orifice of the rectum, these ulcerative syphilitic affections form wounds with walls ulcerated and opposed to each other, as is the healthy anal mucous membrane. If the anus be then deprived of its folds, these ulcerations open like the leaves of a book, to return into contact as soon as the sphincter is distended. As supplementary detail, let us add that, in most cases, the ulcerated lesions are accompanied by a certain degree of inflammatory, œdematous, or sclerous swelling of the anal mucous membrane. Almost always in such cases we find the orifice of the rectum surrounded with a series of ovoid teats flattened laterally, as large as a gooseberry, or a white bean, rosy on the surface, and presenting a hardness either inflammatory and pasty, or dry, parchment-like, and elastic, comparable to chancreous induration.

Sometimes one only of these lesions presents itself at the anus ; at other times we notice several of them. We even see in certain cases the whole circumference of the anus converted into one sore by an extensive ulcerating syphilitic affection, or by the fusion of several of these ulcerations, which at first were separated.

It is almost superfluous to say that, on account of their position, these lesions are of an essentially persistent character. Exposed, in fact, to being made unclean by the feces, and to being dragged asunder, distended, and torn by the passage of these matters, they ought to be, and are generally, rather obstinate. We do not succeed in curing them save by using minute care, a careful local hygiene and appropriate dressings. *A fortiori*, these lesions are persistent, and subject to become complicated with inflammatory accidents when they are left to themselves, neglected or irritated by different causes.

These lesions give rise to functional disturbances more or less marked. They are often painful ; they keep up a constant feeling of uneasiness in the region, with tension and heat ; they arouse false desires for defæcation, and sometimes even true tenesmus ; they finally do not admit of evacuation save at the price of rather severe sufferings.

Nevertheless, a double remark ought to be made in this place. In the first place, these ulcerations are generally less painful than one would suppose, *a priori*, from their nature, their extent, their depth, and especially according to their position on the region submitted to alternate relaxation and contraction, on a region where the smallest anal fissure is often the origin of cruel anguish. In the second place, these ulcerations scarcely

ever cause (at least, as far as I have hitherto observed) those spasms so frightfully painful which accompany and characterise the fissure of the anus. These are, then, relatively tolerant ulcerations, if I may thus express myself, not awakening those contractions of the sphincter and those atrocious neuralgic attacks which other anal lesions of less importance sometimes excite during or after defæcation.

2. *Gummy Lesions*.—Gummy lesions are quite exceptional at the anus. I have never observed them, for my part, save from extension to the anus of peripheric gummy ulcerations. Such was, as example, the case of a young woman we had in the wards during the few years past.

This patient presented on the left buttock an enormous ulcerated gummy tumour of phagedænic character. In its strange progress the lesion ended in nearing and then in attacking the anus, and determining there a deep ulceration, which penetrated into the rectum.

Perhaps, however, certain anal lesions which we observe in the condition of ulcerations are but the last phase of gummata, which were at first solid and then ulcerated. I should be tempted to believe this without daring to affirm it, for the demonstration of the fact has escaped me until now.

II. *Tertiary Lesions of the Rectum*.—The tertiary lesions of the rectum are of several orders. They may be ranged under the three following heads : —

#### 1. *Ulcerated Syphilitic Lesions*.

##### 2. *Gummy*.

3. *Ano-rectal Syphiloma*, one of the most curious lesions, and not yet histologically determined in its initial stage, but ending in an advanced stage in the retractile hardening of the walls of the rectum, and thus becoming the most common origin of rectal strictures.

I shall speak but briefly on the two first groups of this lesion. The ulcerative syphilitic affections, in fact, do not present here characters differing from those which they have on other mucous membranes ; and as to gummy syphilitic lesions, they are so rare in the rectum, that it will suffice to mention them. I shall require, in revenge, to insist at length on the recto-anal syphiloma, a lesion as important as it is little known up to this day—a lesion to which there attaches, as you will see, a considerable practical interest.

1. *Ulcerative Syphilitic Affections*.—The rectal tertiary syphilitic affections of ulcerated form are observed in two orders of different conditions.

Most frequently they are confined to the lowest part of the rectum, and are only the intra-rectal continuation of ulcers of the same nature developed upon the anus. Almost always, indeed, we see them co-existing, and confounded with ulcerative anal syphilitic affections. They extend more or less high up the intestine, generally one or two centimetres from the sphincter, more rarely three or four centimetres. In two cases I have seen them passing the limits to which the eye could follow them, even with aid of the speculum, or the valve used by Sims.

It is, then, firstly, incontestable that tertiary ulcerations may exist in the rectum, from the fact of propagation and extension of anal syphilitic affections, and may constitute in the intestine true *intra-rectal* sores. On this first point there is no discussion allowable, and no difficulty.

But the second point is more open to discussion, and more delicate. Do we observe in the rectum any ulcerations which are independent of anal ulcerations ? Do there exist rectal syphilitic affections which are originally and primarily rectal, just as there exist uterine lesions without any connection with vulvar ones ? Well, yes ; lesions of this kind have been recognised ; yes, tertiary ulcerations may at once arise in the rectum, without proceeding by irradiation from anal lesions. Examples of this have been seen, and that in two different orders of cases, namely—1. In cases where the autopsy showed multiple intestinal ulcerations, not only limited to the

rectum, but disseminated in the iliac flexure and the colon. 2. In the cases where the rectum alone was the seat of ulcerations of this nature. These ulcerations, observed several times on living patients, occupied the rectal wall at various heights, most commonly at the level of the ampullar region. They could sometimes be appreciated simply by digital examination, because of their uneven surface, which contrasted with the smooth and velvety surfaces of the neighbouring parts. They become manifest by direct examination in the form of solutions of continuity with irregular edges, with red and bleeding base, partially covered with greyish detritus or adherent mucosity.

But, let us add that, if these ulcerations have an incontestable existence, they are excessively, nay prodigiously rare. They are, I would venture to affirm, quite exceptional lesions. You may believe, gentlemen, that this rarity is more apparent than real, in the sense that people do not always pay sufficient attention to these lesions, or look for them with enough care, and that they have every chance in this way of remaining unnoticed. This is not the case. I affirm to you that, for my part, I have conscientiously sought for rectal syphilitic affections, and that I have met them only in a very small number of cases. Other observers have sought for them without being more fortunate. So that they are hardly referred to in the majority of special treatises.

2. *Gummy Syphilitic Affections.*—More exceptional still than the foregoing are those rectal lesions of gummy form. They have sometimes been spoken of, but without ever any very authentic example being exhibited, with the exception of a case cited by Professor Verneuil. For my part, I declare I have never met with one.

Let us, then, content ourselves with mentioning in its place this kind of lesion, and let us pass on to the study of another lesion, far otherwise worthy on all accounts to fix our attention—namely, the ano-rectal syphiloma.

#### WASTING OF THE TESTES ATTRIBUTED TO IODIDE OF POTASSIUM.

Dr. Lomon (*Gaz. M. de Paris*) gives the case of a young man, set. 27, father of two children, and married, who had, among other symptoms of syphilis, orchitis, and tertiary affections of mouth and pharynx. Mercury was given, and then iodide of potassium in large and increasing doses until healing of lesions. A year after this there was disease of the pharynx, and the patient himself took iodide of potassium in very large doses. He obtained a cure of the ulceration of the pharynx, but after this coarsely made treatment he remarked a notable diminution in his testicles. In the course of a year and some months Dr. Lomon, asked to examine him, found with surprise that the right testis had disappeared, without leaving any trace, and the left was reduced to the size of an almond.

The patient said he had only erections which were difficult to obtain, and painful, although more persistent than before, and that copulation was painful, without any ejaculation.

#### INDIAN MEDICAL NOTES.—No. XXIX.

(FROM OUR SPECIAL CORRESPONDENT.)

MEERUT, October, 1874.

"PRACTICAL" (continued).

ON returning to Meerut, after strolling curiously about the Bazaar, not at all resembling the Burlington Arcade, or the Crystal Palace, or Langham Bazaar, I felt very ill; but it passed off, and next day one could reply, "Not sick, my lord, unless it be in mind." Nor have we leisure to be sick in bustling times. Just now certain complications of fever—for instance, delirium, which induced Oliver Cromwell to pistol two commanders—requires great perpetual tact, when hospital space, resources, and attendants are limited. The old hospitals, one-storeyed double verandahs, mud walls, thatched roof, flagged floors, as long as height

and space and through ventilation were permitted; and, above all things, the latrines so placed as not to be dangerous to the wards; these buildings had, amongst other advantages, no temptation for jumping out of window. The maniac, running along the flat plain, may break his neck at a drain, or drown himself in a shallow tank—yet very rarely. The tendency may be to inflict injury on others. My present most valued attendant not many months ago was fumbling at another patient's throat at night with a knife—soon removed. One man imagined he was in Noah's Ark, and complained of the overcrowding and the smell of the animals. As a rule, sullen, sulky, bombastic, blasphemous, full of grievances, anxious to be off, certain patients are difficult to manage, for the delusions change so capriciously and are so contradictory. One man will lament his *alter ego* dead in India, another be indignant at detention in hospital, the black faces, pun-kahs, surroundings very puzzling. A cunning patient, after long fasting, long coaxing, may open his mouth, take a little nourishment, retained for a minute, then spat in your face. Never hungry or thirsty, he may refuse food for days; neither by the rectum nor the nostril can the waste of tissue be repaired. The temperature of a bath being about 80°—all ice required for drinking purposes—the immersion of burning patients may not reduce temperature at first—may not reduce it at all, nor will the wet sheet invariably answer. Inunction with oil succeeds better than frequent sponging. I am very fond of carbolic oil, keeping off the pestering flies. Ether spray to head and spine—so valuable in many a case in England—may not be available; the rapid evaporation in climate, where also india-rubber appliances, galvanic batteries, certain medicines soon become valueless to be considered. In England also, before shaving the head of a golden-haired beauty, or any bread-winner who cannot afford a wig, you can temporise—not always, for many and many a life may be lost by such consideration. Here, beyond neuralgia, and the look of the thing, there are no objections, the necessity imperative. Bladders of ice to the shaved head, a frequent stream of water down the patient's spine, a hot bottle to his feet, require constant watching, to see these things are done. One night, dropping in accidentally at the hospital, there was a patient 106° in axilla, sleeping—that is, drifting into coma; soon diverted by taking him into the air and scusing the naked body. In the way of medicines, the experience gained at home and abroad, also the teachings of a limited library, lead to the following conclusions regarding India: Chloral, opium, henbane, digitalis, conium by the mouth may do harm in delirium, inducing coma, else aggravating symptoms, if not straining heart, lung, brain, or kidney. Hypodermic injections, friends of my childhood, may play very falsely. Cannabis indica has not been personally tried here; nor did it answer at home. Tartar emetic and opium a good combination. An ancient apothecary, when attacked with fever, locks himself up, lives on this particular remedy, and returns to duty fresh as paint—as good as new. Bromide of potassium may answer, often followed by boils, which the tossing patient turns into ugly bed-sores, difficult to heal. The only suppositories believed in are those of belladonna in substantial doses. Paregoric containing excess of camphor at present is the favourite of the moment, administered by the mouth. Chlorodyne, discarded, is again advancing in favour. Lini-ments of opium, aconite, chloroform, belladonna, and camphor along the spine; beef-juice, egg-flip, wine, or punch, given in quantities dictated by the pulse, breathing, tongue, and urine, all very good—brandy and Madeira specially. At the commencement of delirium a dark room, leeches to the head, blisters to the neck, cotton-wool in the ears, turpentine enema are my weapons, including, if possible, a European nurse—best of all, a comrade who will humour and coax instead of irritating the patient into fiercer delirium, when restrain only increases shouting, heard by other patients, and the muscular contortions, so violent at first, create the more exhaustion. Constant expectoration, frequent micturition, insensibility of

skin, constipation or retention of urine may be followed by prostrating debility, boils, deafness, cuticular hyperæsthesia, paralysis, insanity, or death, when nutrition or digestion fail in a subject who has a constitutional flaw somewhere; and who has not? In a delirium of fever during pregnancy it is obviously almost impossible to adopt the very valuable expedient of cold affusion, or even the wet sheet; still, you can afford great relief to the distended burning abdomen by inunction, which can never be accused of killing the child. The other day a woman, a martyr to fever during pregnancy, had uræmic convulsions, so often dangerous to both. The foetal murmur became hushed, the child fell, the breasts drooped; yet the labour was natural, the infant weak, sallow, premature, four pounds weight—lived a few days. I feared death to mother and child. When children are delirious it is very easy to pop them backwards and forwards into cold water in the early part of the day—not late in the evening, when the water really is too cold for safety. Holding a naked child over a Macbeth caldron of hot water I have found beneficial when skin and kidneys struck work. In the delirium of adults, leeches, blisters, cold affusion, wet sheet, turpentine enemata, sometimes mercurial inunction, alcohol, milk, beef-juice, camphor, opium, and the other remedies are all excellent in their way; but unless you have a good nurse, or, neglecting other patients, do the nursing yourself, at the same time taking the case on its own merits, be most guarded in forming, still more so in expressing, any opinion. Every hour tided over, sleep regained, food digested, pulse, respiration, temperature, urine, excreta—all satisfactory, the patient cheerful, the friends happy, all these things, however, must not shut your eyes to the fact that delirium is very insidious, so apt permanently to damage even the strongest brain.

## Transactions of Societies.

### MEDICAL SOCIETY OF LONDON.

MONDAY, NOVEMBER 9TH, 1874.

Mr. VICTOR DE MERIO, F.R.C.S., in the Chair.

Mr. HENRY SMITH exhibited a tumour removed from a young girl aged 6½ years, to demonstrate the difficulty of diagnosis of tumours. It was situated over the hip-joint, extending down the thigh, and appeared about the size of a man's fist. Three eminent surgeons had seen the patient, and two of them were of opinion that the tumour was cystic, while the third maintained that it was of a solid consistency. Mr. Smith thought at first that it was cystic, but as puncturing with a grooved needle produced no fluid, he concluded that it belonged to the fatty class, and dissected it out from the adjoining tissues. It was adherent to the periosteum over the great trochanter, and was a well-marked instance of fibro-fatty tumour. Its history proved that it should have been removed before, and Mr. Smith had seen several cases of fatty tumour which recurred first in the form of fibroid fatty tumour—i.e., with increase of fibrous element, and lastly, in a malignant form. He wished to know the opinion of the Society as to whether fatty tumours often were followed by malignant ones.

Dr. CLEVELAND and the PRESIDENT having made some remarks,

Mr. WILLIAM ROSE stated that a microscopical examination of this tumour assigned to it a semi-malignant character.

Dr. THEO. WILLIAMS communicated

A CASE OF TRANSFUSION OF LAMB'S BLOOD IN PULMONARY CONSUMPTION, RELATED BY THE RECIPIENT, DR. REDTEL, OF KÖBEN.

The author, who had well-marked tubercular consolidation of the left lung and ulceration of the larynx, accompanied by a certain amount of pyrexia and dysphagia,

was transfused with lamb's blood by Dr. Hesse, of Nordhausen, on the 1st of July, and he narrates his symptoms after the operation. The apparatus consisted of two glass tubes and an india-rubber pipe filled with cold solution of carbonate of soda. By means of this blood flowed from the lamb into the median basilic vein the author for the space of ninety-five seconds. The first sensations were warmth in the arm, formication and redness in the face, and after fifty-five seconds dyspnoea, which became intense, ensued. The operation had to be discontinued at the end of ninety-five seconds. Violent pains in the loins succeeded, which, though they diminished in intensity, lasted some hours, then afterwards assumed a pulsatile character, synchronous with each arterial beat, and were assigned by the author to pressure by the distended inferior vena cava and abdominal aorta on the lumbar sympathetic. Forty minutes after the operation a general rigor, with slight cyanosis appeared, followed an hour later by a reaction and profuse perspiration, lasting for five hours. Pulse 140, resp. 32. The patient slept without drugs, though badly, on account of his cough. On the second day the urine contained a trace of albumen, and five days later the usual eruption of urticaria, accompanied by rather high fever, appeared. This lasted two days, and greatly prostrated him. On the 8th of July some improvement took place in his appetite. The result of the operation appears to have been that no change took place in the symptoms with the exception of the dysphagia. Physical examination showed a considerable diminution of the lung consolidation. Dr. Hesse stated that he regulates the quantity of blood transfused by the patient's appearance and sensations. He has performed the operation thirty-two times with one bad result. He recommends it in cases of phthisis where anæmia is a marked symptom, and especially where the discharge is ushered in by extensive hæmoptysis, accompanied by slight or doubtful physical signs. The pulse is one great indication. If it be full and strong the transfusion is dangerous. Dr. Redtel suggests the use of transfusion of lamb's blood in time of war to supply loss of blood from severe wounds, and stated in conclusion that three weeks after the operation he was gradually becoming worse, having reaped no material benefit from it.

The PRESIDENT mentioned a case that had occurred in the German Hospital, that a patient having lost blood largely through hæmorrhage from caries, a sheep that happened to be on the premises was connected by a simple apparatus like that used by Dr. Hesse, and blood was transfused; the patient, however, died.

Dr. AVELING thought that the objection to the instrument used by Dr. Hesse was the impossibility of measuring the quantity of blood transfused; with Dr. Aveling's instrument there was no difficulty on this score. He preferred human blood to lamb's blood, and stated that he was the first to inject lamb's blood in this country, which he did in the beginning of the present year.

Dr. RICHARDSON then read a paper

#### ON CERTAIN TYPES OF DISEASES INCLUDED UNDER THE TERM PURPURA HÆMORRHAGICA.

He commenced by indicating that in the progress of medical science and art it had often happened that one or more distinct diseases had been discovered to exist under a single generic term. This particularly obtained in respect to the application of the term purpura hæmorrhagica. In the short and practical paper which followed, Dr. Richardson defined three forms of purpuric disease, each having a distinct pathology, etiology, diagnosis, and prognosis, and each requiring a particular treatment. To the forms thus referred to he applied different names, viz.—(1) aqueous purpura; (2) saline purpura; (3) vascular purpura. Aqueous purpura was so named because in it the water of the blood is in excess, and the colloidal and crystalloidal parts are relatively diseased. There is no evidence that the actual quantity of fibrine is reduced, but it is distributed through too large a volume of water. Hence the blood, imperfectly protected by its coagulable fibrine, is ready to flow from the vessels like water from the smallest wound. It is also ready to diffuse through vessels that may be injured by a blow or by pressure. This type of purpura has been studied by the synthetical method, and comparisons were drawn by the author between the blood observed in those researches and the blood of the human subject under the disease in question. The origin of this type of the malady was traced to hereditary causes mainly, but it may arise from mental

shock. Two cases illustrative of this origin were related, in one of which the symptoms came on after fright, in the other after sudden and intense grief. Saline purpura was so named because in it the blood is not surcharged with water, but is surcharged with some saline soluble substance by which the plastic colloidal fibrine is held in undue solution in the water. The synthesis of this type of malady was also explained. The disease is not hereditary, but is induced by some error of diet or other cause that increases the solubility of the fibrine through the blood. The true scorbutic eruptions and scurvy of the old schools of physic come under this head. The author added that he had seen this type of purpura induced by the excessive use of chloral. Much loss of blood is not common in this type of purpura, but passive exudation from vascular parts, as from the jaws, are common with the excess of saline matter. The blood, in fact, will transude from both structures; but after it has passed from the body the fibrine will slowly separate and become pectous. Vascular purpura is a type of the disease in which the blood is not modified at all; the proportions of its water remain the same as in health, but owing to some defect in the vessels of the minute circulation, those vessels allow the blood to escape if they are subjected to any blow or strain or pressure. The nature of the vascular change is obscure: it may be a paralysis of the vessels; but the author is rather inclined to think it due to some actual structural modification of the vessels themselves. The subjects of this type of purpura are usually young, and, as a rule, they present some deformity more or less marked of the skeleton. The diagnosis, differential and general, of these three types of purpura were minutely described, the different characters of the symptoms being defined with especial care; particularly it was pointed out that in the vascular type of the disease the eruption was hard and prominent, from the fact that the blood is natural, the fibrine separates when it is thrown out, and coagulates then. There is sometimes a combination of these types of purpuric disease. Dr. Richardson related a most interesting fact of this nature in the case of a patient from whom an extremely fluid blood flowed from five points on the surface of the body. The paper included finally a review of the special modes of treatment required in each type of purpura that had previously been described. A special point was made of the best method of arresting the hæmorrhage from wounds, as after the extraction of a tooth, in instances of aqueous purpura. In six cases of this kind to which Dr. Richardson had been summoned, to stop what was found to be fatal hæmorrhage, the flow of blood had been checked by the attention paid not less to the general than to the local measures. The general treatment consisted in sustaining the patient with food and administering mineral acids internally, even though the flow of blood were still imperfectly staunched. The local method consists in applying with firm pressure a plastic styptic to the bleeding part; caustic styptics were specially condemned. In conclusion, the value of turpentine for the treatment of the vascular variety of purpura was strongly enforced, and rules for the subject of each type of the disease were specified.

In the discussion which followed the President complimented Dr. Richardson on his useful and convenient classification of purpura, which might lead us to a better knowledge of the causes of that symptom, and to its more scientific treatment. He had seen a well-marked purpuric eruption in a patient deeply imbued with syphilis, and wished to know in what class this instance would be included?

Dr. DALDY had seen several cases of purpura among people living in the low lands near Lewisham, and found it was generally connected with enlarged spleen.

Dr. HARE had seen a most acute case of purpura occur in a man æt. 50, living at Chelsea. At first sight the patient presented the appearance of suffering from glanders. Both face and neck were a mass of extravasated blood patches, which spread afterwards to the body, assuming at first a symmetrical character, but eventually covering the whole body. He died in twenty days from the commencement of the disease, and a cavity was found in one lung, which Dr. Hare considered had something to do with the origin of the complaint.

Dr. CLEVELAND said he had seen purpura occur in patients of all ages—in the child of a few months and in persons over eighty. The worst case he had ever witnessed was one mistaken for malignant small-pox, where blood flowed from every pore, and hæmorrhage took place in the nostrils, bowels, and stomach, soon ending fatally. Though turpen-

tine was good in these cases, he found acetate of lead better than all; and as an instance of Dr. Richardson's third form of purpura, he related a case where a large spot of extravasated blood on one of the limbs was accompanied with aneurism of the aorta, thus showing the tendency of the vessels to degeneration and rupture.

Mr. WOODHOUSE BRAINE had seen a good instance of purpura following the use of chloral. A gentleman at sixty had been given chloral to induce sleep, in doses of 1 dr. the first night, 10 gr. the second, 2 sc. the third, and then  $\frac{1}{2}$  dr. for two successive nights. On the sixth day large purpuric spots appeared on the calves. On two other occasions he took the same doses of chloral, with the same effects.

Dr. THEODORE WILLIAMS highly praised Dr. Richardson's classification, being based as it was on the analysis of the blood, and would prove very useful to future workers, though modification might become necessary, especially to the connection of purpura with diseases of various organs. He was surprised at no mention being made of the common occurrence of purpura with diseases of the liver, especially in jaundice, where purpura, chiefly of the lower extremities, often made its appearance when the jaundice had lasted long; it was by no means rare in the later stages of granular kidney. Its occurrence in malarious districts was well known, and of its following the use of chloral. Dr. Williams gave a marked example of an asthmatic who took chloral for three days at the rate of a scruple every three hours; the asthma ceased, but a purpuric eruption appeared affecting the lower extremities and abdomen, and lasted two days. Its disappearance was followed by a return of the asthma.

Dr. HARE remarked on the fatal prognosis which purpura in scarlet fever generally indicated. He had never known a case of scarlet fever where even one purpuric spot appeared that had not proved fatal.

Dr. SANSON dwelt on the great difficulty of diagnosing purpura from some forms of variola, and in reply

Dr. Richardson stated that in his classification he had kept quite clear of variola and scarlatina, which, with cases arising from marsh miasm, he regarded as the result of severe blood-poisoning, forming a class by themselves; syphilitic purpura and that arising from poisoning by chloral or mercury he would include in class 2, or saline purpura; and he remarked that both fibrine and albumen had been diffused with saline and then dialysed through animal membranes. He was sorry to say that as yet he knew little about the pulse in purpura, and hoped for future observation on this point.

NOVEMBER 16TH, 1874.

Mr. BRAINE showed (through the kindness of Dr. Waller Lewis) one of the *employees* at the General Post Office, who had a large hypertrophied fold of the mucous membrane on each side of the frænum coming from the upper lip, and so large that when the lip was drawn tightly over the teeth the growth slipped from behind it, and, dropping down, entirely covered the upper teeth. The patient was about 18 years of age. He stated that the growth commenced about six years ago. There was no family history of any like growth.

Mr. NAPIER had noticed this peculiarity when there had been great irritation of the mucous membrane of the mouth. Certain teeth being absent, the edges of the other teeth irritated the soft parts, and this was the result.

Dr. FAYRER had seen something similar in another part of the body, in the scrotum, and he had called it evoid elephantiasis. It had since been described by Dr. Vandyke Carter under another name, and shown to be an affection of the lymphatics of the parts.

Mr. SEWILL had seen the affection before, generally in scrofulous patients.

Mr. BRAINE also exhibited for Dr. Cleveland a small tumour of doubtful character removed from a lady, æt. 74. She had always enjoyed general good health, and from her earliest recollection had had a small swelling or wart on the skin of the abdomen. About nine years ago this growth had bled a little, but did not begin to enlarge until the beginning of the present year, when, after a journey from Scotland, it grew to the size of a hazel nut, causing considerable pain and uneasiness. In the course of three or four days it presented a melanotic appearance; and when shown to Sir James Paget, he believed it to be cancerous.

It was removed by the knife. A digging incision was made, and the wound freely dressed with cold perchloride of iron. The patient has since done well.

The PRESIDENT had noticed in the case of warts about the vagina and anus, that after successive removals the last growths are certainly of a malignant kind.

Mr. SEBASTIAN WILKINSON said it should be noted that the locality from which this growth was removed was often the seat of epithelioma, and that many of these so-called warts were really epithelial growths.

Dr. ROUTH remarked that, as regards vaginal warts and epithelioma, the microscope gave no distinctions, for under it they were identical.

Mr. W. D. NAPIER then made a communication,

SOMETHING NEW, OR BELIEVED TO BE SO, IN THE SCIENCE OF DENTAL SURGERY.

After a brief allusion to the encouragement afforded by the Society towards the general advancement of science, he proceeded to treat of a case lately under his care, in which he had, by an original mode of treatment, been able to perfect a new and, as he esteemed it, desirable process of operating on the mouth without causing pain to the patient, who, in this instance, objected to the use of anæsthesia in any shape. The case, which was illustrated by casts, was somewhat rare, the teeth in both jaws having been reduced by mercurial salivation or other cause to the condition of sharp, jagged spikes, giving great discomfort and nervous irritation. The process of filing necessary to reduce them to the level of the gum was done satisfactorily by the aid of ether locally applied during the operation, until the exposure of the nerve, &c., rendered the employment of it nugatory. It was then—in lieu of destroying the nerve, which is the ordinary practice under these circumstances—Mr. Napier very cautiously and gently applied to the exposed portion of it in each tooth successively a pencil of hickory wood dipped in nitric acid, by which simple method it was rendered insensate, and the operation necessary to enable the mouth to receive artificial substitutes was completed. Mr. Napier was anxious that the principle involved should receive a fair share of attention, as he held the present system of nerve-demolition to be at variance with true science. The paper concluded with an expression of the author's hope that the merits of a better acquaintance with dental surgery would soon be recognised by others than those whose speciality it is, and he intimated his conviction that the latter would be inestimably benefited by obtaining their education and training in duly organised schools, where alone they can obtain perfected instruction in every branch of physiology that will enable them to excel in one.

Mr. SEWILL asked whether the pulps were exposed when the patient was first seen, and whether they were removed under an anæsthetic. If there was no exposure, Mr. Sewill recommended the use of astringents, and if there was, he much preferred total removal of the pulp to the very painful application of actual cautery.

Dr. CRISP asked whether nitric acid caused pain, and whether there was a history of syphilis.

Dr. LEE, who had seen the patient, testified to his general improvement in health since his teeth had been set right.

Mr. NAPIER, in reply, gave a short explanation on the points in question.

Dr. R. J. LEE then read a paper on

#### MATERNAL IMPRESSIONS.

The author commenced by expressing an opinion that although the subject had been often discussed, yet the progress of scientific knowledge was a reason for considering it from time to time if it could be proved that there were sufficient grounds for modifying our views regarding it. The case related by Moriceau of his relation, who was affected during life with tremor of the hands in consequence of the fright his mother sustained previous to his birth from the sudden loss of her husband (who was stabbed by a servant), was taken as an example of a certain class of cases of this kind. The value of a system of classification of abnormalities in the fetus according to anatomical details was shown to be useful in establishing the view that such abnormalities follow certain physiological laws, but that this system does not attempt to explain their cause. The necessity of defining what we mean by maternal impression was pointed out as the first step towards explaining the manner in which

an impression can affect the child. There appeared to be certain effects which followed purely emotional disturbances, and others which were the consequences of impressions produced by objects of fear or disgust, while between purely emotional and objective impressions there were a great variety which affected the emotions and the senses simultaneously. Experience proved that the first and last of these classes of impressions were more commonly stated to be causes of various abnormal conditions in the child, but that such effects were exhibited in some deficiency of its intellectual and moral nature rather than in deformity or abnormality in special organs or parts of its body. In illustration of the truth of this view a few cases were selected; and Dr. Lee concluded by recommending it to the attention of the members of the Society as of greater importance than that which attempts to connect particular kinds of deformity with the object which was stated to have produced "an impression" on the mother.

#### ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

NOVEMBER 10.

MR. WHITE COOPER in the Chair.

A paper was read by Mr. WEST entitled,

OBSERVATIONS ON THE ELIMINATION OF UREA IN CERTAIN DISEASES.

The author related cases of pneumonia, rheumatic fever, Addison's disease, diabetes, and aneurism.

It was found in pneumonia cases that when the temperature was 104°2, there were excreted 14·87 grammes of urea, and when the temperature was 100°3, the quantity of urea excreted was 20·00. In another case, where the patient died, the percentage of urea varied between 2·2 and 2·35. There was much nitrogen taken in by the patients, and the percentage eliminated was very small. It seems probable that, in pneumonia, there is excretion of the nitrogen by the kidneys taking place in some other form than that of urea. The excretion of urea seems to vary greatly in pneumonia.

In the cases of Addison's disease, the amount of urea eliminated is diminished, and this on account of the want of appetite.

In the diabetes case, the great amount of urea excreted was remarkable, as much as 57·5 grammes a day. It was not on account of the food the patient took, but on the waste of tissues. The percentage of urea is always high in fevers, and falls when the pyrexia ceases. Changes of diet in fever cause the same oscillations as in health. It would be important to ascertain the total nitrogen excreted.

Dr. DICKINSON said that Haughton observed that the amount of urea in diabetes was more or less connected with the sugar. Three grammes per 14 lbs. is about the amount of urea excreted per diem in health: making this allowance, all the nitrogen going into the urea and the carbon and hydrogen into the sugar. In the cases of diabetes insipidus, the urea is largely increased. The author observed that in one case of polyurea he had examined the amount, and not found this.

#### The Medical Press and Circular.

"SALUS POPULI SUPREMA LEX."

WEDNESDAY, NOVEMBER 25, 1874.

#### THE ACTION OF DRUGS.

##### IV.

THE fifth section of Professor Bennett's report is devoted to recording the results of various experiments undertaken to ascertain the antagonism between sulphate of atropia and meconate of morphia. The inquiry was divided into three parts: 1. To ascertain as precisely as

possible the physiological action of meconate of morphia on the rabbit and on the dog; 2. To ascertain in the same way the physiological action of sulphate of atropia on the rabbit and on the dog; and 3. To ascertain the combined action of the two substances, introduced either simultaneously, or the one before the other, in these animals.

In reference to the first point, Experiment 299 shows that a rabbit weighing  $3\frac{1}{2}$  lbs. recovered after receiving six grains of the morphia salt; while in Experiment 300 one of the same weight died after receiving nine grains. Yet in former report ten grains were given as the minimum fatal dose. In both cases lowering of respiration and cardiac impulse was observed.

Experiments 301, 302, 303 are extremely useful in showing that in rabbits under the influence of morphia the sciatic nerve responds to stimulus; also that if the vagi be exposed and stimulated by the induction current, total stoppage of the heart's action follows; also, if the sympathetic nerve be stimulated, contraction of pupil follows. These experiments are exceedingly interesting and important.

Experiments 304, 305 we quote at full length, as, being on dogs, they are of more interest and more to be relied upon as a means of elucidating the physiological action of the drug in question. They also serve to indicate the difference in the dose required to affect a rabbit and a dog, for in Experiment 304, on a dog, we find marked physiological effects produced by 2 grains, and in Experiment 305 by  $3\frac{1}{2}$  grains, while in rabbits 6, 9, and 10 grains were given; and it has already been shown that these animals will bear from 7 to 8 grains without any marked effect except drowsiness and contraction of pupil and slight spasms (Experiment 284). This difference should be borne in mind by future experimenters.

"*Experiment 304.*—Male black and tan terrier dog, weighing 20 $\frac{1}{2}$  lbs. Ten minims of a solution of meconate of morphia, containing two grains of the meconate, were injected under the skin on the back. In four minutes it vomited three times. In another minute it attempted to stand up, and trembled violently. It laid its head down on the floor. In another minute it lay flat on its abdomen, with its head extended on the fore paws, and the tongue protruded. The pupil was now much contracted. It remained in this condition for half-an-hour. It defæcated a quantity of soft green pulaceous matter. In another half hour it walked with a staggering gait to the other end of the laboratory, when it lay down and apparently fell asleep. It was roused three hours after the time of receiving the dose of meconate of morphia, and it then took food. It recovered slowly, as for several days it was observed that the hind legs were weak. There seemed to be also, to a slight extent, a loss of co-ordinating power.

"*Experiment 305.*—Male Scotch terrier, weighing 14 $\frac{1}{2}$  lbs. Three grains and a half of meconate of morphia dissolved in eighteen minims of distilled water were injected under the skin of the back. The phenomena seen in this case were similar to those just described in experiment 304. Thirty-five minutes after having received the dose, the animal was deeply narcotised. The pupils were contracted to a mere point. It could not be aroused in any way. The respirations were slow. The cardiac pulsations were so feeble that they could scarcely be perceived through the walls of the chest. While the animal was in this state, the three following experiments were made as quickly as possible. 1. The sciatic nerve was exposed and stimulated by a weak induction current. It

responded to an extremely feeble current. The muscles of the leg also contracted when stimulated directly. 2. The pneumogastric nerve on the right side was exposed in the neck, and stimulated by a weak induction current. Stimulation was found to arrest the action of the heart. 3. The sympathetic nerve on the right side was exposed and also stimulated by a weak induction current. The heart was then noticed to pulsate more quickly. On cutting the sympathetic and stimulating the cephalic end, the pupil slowly dilated but not to its full size. The animal was then killed. During the operation there appeared to be complete anæsthesia. On opening the thorax and stimulating the phrenic nerves, the diaphragm contracted powerfully.

"From these experiments the following conclusions regarding the physiological action of meconate of morphia on rabbits and dogs may be drawn.

"1. In both animals, meconate of morphia acts on the encephalon and on the spinal cord, but in the case of dogs the action is more cerebral, while in rabbits it is more spinal.

"2. As John Harley states, (a) either delirium or hypnotic effects may be produced. In the experiments recorded, hypnotism was the predominant effect.

"3. In the case of rabbits, death is often produced by convulsions.

"4. In both cases, while deeply under the influence of the drug, as stimulation of the motor nerves caused muscular contractions, we must hold that the sensibility and conducting power of the nerves are not destroyed.

"5. In both cases, stimulation of the vagus in the neck causes stoppage of the action of the heart. Consequently, the vaso-inhibitory fibres in the vagus are not paralysed by meconate of morphia. It is possible, as Harley appears to think, (b) that these fibres may be irritated.

"6. Stimulation of the sympathetic in both cases causes dilatation of the pupil. Consequently the sympathetic trunk is not paralysed, and the contraction of the pupil must be owing to the cranial origins of the third nerve being irritated, thus causing contraction of the circular fibres of the iris, governed by that nerve, and consequent contraction of the pupil. (c)

"7. Morphia may affect the action of certain nerves by paralysing the nerve centres from which they issue, but the nerves themselves apparently still retain sensibility and conductivity."

The conclusions arrived at, which we have quoted above, are of great value, and we must say these experiments are the most satisfactory, as placing on a pretty firm basis our knowledge of the physiological action of this very useful drug.

Next we have the record of experiments conducted to ascertain the physiological action of sulphate of atropia on rabbits and dogs, and in reference to rabbits Professor Bennett says:—

"In small doses of from two to four grains the only observable symptoms are dilatation of the pupils, quickening of the cardiac contractions, and of the number of respiratory movements. When four to eight grains are given, in addition to these symptoms, there are slight paralysis, more especially of the hind extremities, and a greater increase in the number of cardiac impulses. Above

(a) Harley, "Old Vegetable Neurotics."

(b) See Harley, "Action on the Pupils," pp. 136-137

(c) Harley lays great stress on the action of morphia on the vagus, but his facts do not appear to warrant his conclusions. He says (p. 184): "Derangement of the vagus nerve is the main source of the distress which follows; its sentient branches are blunted, and the lungs no longer invite a flow of blood; its motor branches convey only cramp to the muscular parts; the mechanical suction-power of the chest is depressed, and the lungs themselves tend to collapse. The right heart soon becomes distended; cardiac distress is complained of; the pulse loses force and volume, intermits, and syncope results."



this dose the action of the heart and lungs becomes embarrassed—the heart's action being much weakened, and there is also a reduction in the rate of respirations. After doses above sixteen grains, death ensues with paralysis, tremors, spasms, and perhaps convulsions."

Yet, on page 465 (already referred to), it is stated that up to four or four and a-half grains no symptoms are observed, and with four to six grains dilatation of pupil, uneasiness, restlessness, reduction of respiration, and acceleration of cardiac impulses, and twenty grains were given as a minimum fatal dose. It is to be regretted that the minimum physiological dose was not more accurately determined. However, in reference to the above record of the different actions of small and large doses of atropia—viz., a stimulant action when small, a depressant when large—we here draw attention to Dr. John Harley's (page 217) remarks. He says that in moderate doses this drug may be regarded as a direct and powerful stimulant of the sympathetic nervous system, and that in man 1-48th of a grain is sufficient to produce the stimulant effects; but if large doses are given the force and activity of the heart is diminished. This dual action of a drug, which we see applies to all animals, should be borne in mind both when using a drug in the treatment of disease or as an antagonist to another drug.

The next series of experiments (306, 313) were made on dogs to ascertain the minimum fatal dose, which is stated to be three-fourths of a grain. We here quote experiments 306, 311, and 312, as bearing out what we have said about the dual action of drugs:

"*Experiment 306.*—A Scotch terrier, weighing 16 lbs., received the one-eightieth of a grain of sulphate of atropia in ten minims of water under the skin of the back. Before the substance was introduced, the transverse diameter of the pupil was 10-50ths of an inch. Pulse 118, respirations 18 per minute. In four minutes the pulse had risen to 280, and was very firm to the touch. The pupils were dilated to their full extent five minutes after the dose. The lips, inner surface of the cheeks, surface of the tongue, and the lining membrane of the nose were all dry. In three-quarters of an hour the pulse fell to 250. The animal appeared to be excited. It ran backwards and forwards, came against the legs of the laboratory table, and sometimes sat down and whined. At the end of four hours after receiving the dose, no effects could be observed.

"*Experiment 311.*—Ten days afterwards the same dog was 13½ lbs. in weight, but it appeared to be out of condition so far as its skin was concerned. The hair was scanty, more especially near the mouth. In this experiment, half a grain of sulphate of atropia was injected under the skin near the nape of the neck. The effects were the same, although much intensified. The animal lay prostrate, with the head resting on the fore paws, the mouth partially open, and the tongue lolling out. It was insensible. It could not be roused by pushing. There were a few convulsive jerks of the muscles of the back and neck which tended to cause the head to move suddenly backwards. It remained in this condition for nine hours, when it slowly recovered. No further experiments were made on this animal, as it remained out of condition for a long time. It completely recovered.

"*Experiment 312.*—The fatal dose of sulphate of atropia for a dog being now evidently approached, it was determined to ascertain it, if possible, with more precision. An experiment was accordingly made on a mongrel English terrier, weighing 15 lbs. Three-fourths of a grain of sulphate of atropia in thirty minims of water were injected under the skin over the left flank. The phenomena observed after this large dose were the same

as those just described. One hour after the administration of the dose, the animal was prostrate, with pupils widely dilated. The cardiac pulsations were too rapid to be counted, and they were also so feeble as scarcely to be felt. The respirations were irregular and shallow. There were convulsive twitchings of the muscles, more especially those of the back and neck. The sphincters were paralysed, and the faeces and urine came away frequently. Three hours after the dose, a smart convulsion occurred, the body was bent backwards, the mouth opened widely, the heart suddenly ceased, and the animal was dead."

We also refer those of our readers interested in this subject to Dr. Harley's and Messrs. Burness and Mavor's works, where several experiments on dogs, horses, and men with this drug are recorded.

Experiment 314 indicated that when a dog is under the influence of atropia the motor nerve-tubes are not paralysed; but stimulation of the vagi produced no appreciable effect on the number of the cardiac pulsations, and this indicates, as Professor Bennett says, that atropia paralyzes either the trunk of the cardiac branches of the vagi, or the intrinsic nerve centres in the heart, with which the cardiac branches are connected. Such being the case, we can understand how a *large* dose of atropia will intensify and prolong the action of morphia, and yet by its stimulant action in *small* doses on the heart it may, in conjunction with other remedies, aid in recovery in cases of morphia poisoning, although it cannot be regarded as a *direct antidote*. This fact has been commented on by various observers recently.

Report 5 is devoted to a consideration of the antagonism between sulphate of atropia and meconate of morphia, and the inquiry was divided into two parts—viz., how far does sulphate of atropia influence the effects of meconate of morphia when given, first, after, and secondly, before that drug.

To ascertain the first point, twenty-one experiments were made on rabbits, the sulphate of atropia being administered at various intervals after a fatal dose of meconate of morphia. Then, to ascertain the second point, eleven experiments were made, in which one and three-quarters or two grains of sulphate of atropia were given before the meconate of morphia.

In reference to these experiments Professor Bennett remarks—

"That, out of twenty-one experiments in which what was held to be a fatal dose of meconate of morphia was followed by a dose of sulphate of atropia, six recovered. When the crucial test was applied to these six rabbits six days later, by injecting ten grains of meconate of morphia without sulphate of atropia, four died, and two recovered. In the case of the latter, the dose of ten grains cannot be considered a fatal dose. In all cases, there could be no doubt that the subsequent injection postponed the fatal issue, if it did not save life. As the sulphate of atropia resembles meconate of morphia in producing convulsions when given in large doses, larger doses of the former than one grain and three-quarters were not given in this set of experiments; but it appeared, from watching the experiments, that the sulphate of atropia favoured the chance of recovery after a fatal dose of meconate of morphia, by causing contraction of the blood-vessels. After sulphate of atropia, the pupil (which was contracted by a dose of meconate of morphia previously given) slowly dilated; and in those cases in which doses of sulphate of atropia, amounting to one and a half or one and three-quarters of

a grain, were given within six minutes after the meconate of morphia, the pupil remained nearly of its normal size before the experiment. It was observed also that the vessels of the ear, turgid with blood after the large dose of meconate of morphia, contracted considerably about eight or ten minutes after the introduction of the sulphate of atropia."

Also "that, out of eleven instances in which a dose of sulphate of atropia had been given previous to what was held to be a fatal dose of meconate of morphia, seven recovered—a larger proportion than when the meconate of morphia was given first. Of these seven cases, four died by the crucial experiment of giving meconate of morphia with sulphate of atropia, while three recovered. These numbers are so close that, even although it were admitted that sulphate of atropia modified the symptoms produced by meconate of morphia, and postponed death, it might be objected that, in those cases of recovery, ten grains of meconate of morphia was not a certainly fatal dose. Eighteen rabbits were therefore collected, of as nearly the same weight as possible; and two sets of experiments were made, in which larger doses of meconate of morphia were employed. In nine cases, the meconate of morphia was given first, and in the remaining nine it was given last."

And then passes on to tabulate the results in these eighteen cases. This is followed by a record of ten experiments with meconate of morphia given after large doses of sulphate of atropia, and the report thus concludes:

"It does not appear from this table that meconate of morphia favours recovery after a large dose of sulphate of atropia. In several cases—Nos. 372 and 373—the time of death seemed to be rather hastened than delayed, and the animals died in severe convulsions, preceded by tremors and pushing backwards of the body. In all of these cases, it was observed that large doses of sulphate of atropia produced great acceleration of the action of the heart, notwithstanding the administration of meconate of morphia. (The italics are ours.) This appeared to indicate either complete or partial paralysis of the vaso-inhibitory branches of the vagus or stimulation of the sympathetic. It was important, however, to ascertain more precisely whether or not the meconate of morphia relieved in any way, or to any extent, this paralysis of the vaso-inhibitory nerves.

"Experiment 375.—An experiment was accordingly made on a large rabbit, weighing 4½ lbs. It first of all received seven grains of sulphate of atropia under the skin of the back. The pulse soon became accelerated. It was then fixed in Czermak's rabbit holder, and the pneumogastric nerves on both sides quickly exposed. By proper electrical arrangements, one or both nerves were stimulated, and the cardiac pulsations counted before, during, and after the application of the stimulus. It was found that there was no perceptible retardation of the heart's action on stimulating the vagi, indicating paralysis of the vaso-inhibitory nerves. Eight grains of meconate of morphia were now introduced by injection into the jugular vein, and the animal was left undisturbed for four minutes. The stimulus was again applied to the pneumogastrics, with the same negative effect of producing no diminution in the number of the cardiac pulsations. The stimulus was repeatedly applied with the same effect. It was therefore proved by this experiment that, while sulphate of atropia did paralyse the vaso-inhibitory nerve-tubes in the vagus, or the intrinsic motor ganglia in the heart in connection with these nerves, the subsequent exhibition of meconate of morphia did not remove this effect; and that, in this respect, the two active substances were not physiologically antagonistic.

"The inferences to be drawn from the experiments on rabbits are the following.

"1. Sulphate of atropia is physiologically antagonistic to meconate of morphia within a limited area;

"2. Meconate of morphia does not act beneficially after a large dose of sulphate of atropia, for in these cases the tendency to death is greater than if a large dose of either substance had been given alone;

"3. Meconate of morphia is not specifically antagonistic to the action of sulphate of atropia on the vaso-inhibitory nerves of the heart; and

"4. The beneficial action of sulphate of atropia after the administration of large doses of meconate of morphia is probably due to the action sulphate of atropia exercises on the blood-vessels. It causes contraction of these, and thus reduces the risk of death from cerebral or spinal congestion, as is known to occur after the introduction of fatal doses of meconate of morphia. It may also assist up to a certain point, not precisely fixed in these experiments, by stimulating the action of the heart through the sympathetic, and obviating the tendency to death from deficient respiration observed after large doses of morphia."

It is unnecessary to comment on these conclusions having done so in the course of our review of the various experiments. We must, however, express our gratitude to the experimenters for the immense labour they have devoted to this important point, and for the clear manner in which they have recorded the results.

## HOSPITAL SATURDAY.

THE Hospital Saturday accounts have at last been closed, and the liberality of the wealthy artisans of London in the cause of humanity is represented by a beggarly contribution of £5,800. To extract even this miserable sum from the superfluities of the working man it has cost, in processions, banners, and suchlike adventitious inducements no less a sum than £1,100, and the realized profit from the Hospital Saturday movement is represented by a grant of perhaps £50 a piece to the London medical charities, and the gratuitous advertising of a clique of meddlesome people, who are anxious to be considered philanthropists, and are not unwilling to have the public money passing through their fingers. Compared with this disgusting exhibition of selfishness on the part of the petted working man the efforts of the church-going upper classes stand out in honourable contrast, for the first Hospital Sunday produced no less a sum than £27,000, and the collection of that large bounty cost less than £750. We aver without hesitation that the London working men in their millions were in a better position to contribute such a sum than the upper and middle classes in their thousands; yet they have on this occasion conclusively demonstrated their utter meanness of mind and complete lack of humanity. As long as the working man can secure medical care for his own body and alleviation for his own pains by practising any amount of deception or whining he cares little for the sickness, misery, or starvation of those around him, even of his own class—nay, even of his own wife and children. He will spend a comfortable weekly income on skittles, drunkenness, or ruffianly laziness, but he won't spare even a sixpence a year to keep himself and his family above the pauper herd or to alleviate the miseries of his destitute fellow-worker. He will brawl republicanism and talk patriotism as long as he can get a platform upon which to display his ignorance and his abominable political creed but when the touchstone of charity is applied to him the

emptiness of his professions and the meanness of his character are at once made manifest. We take credit to ourselves for having, at the moment when Captain Mercier and his fellow-philanthropists started the Hospital Saturday scheme, repudiated its principle and prophesied its failure. If the result has taught the people who lavish their money and their sentiment upon the working man that the recipient of their charity is as a rule entirely unworthy of it, the Hospital Saturday movement will have yielded a more valuable result than is to be found in the glorification of a half-dozen of fussy people who mistake their well-intentioned but misplaced emotion for real philanthropy.

### CHARITY VOTING REFORM.

FROM the manifesto just issued by the Committee of the Charity Voting Reform Association we gather that an unusual amount of success has already attended the movement, while it affords unmistakable proof of the wide-spread discontent that prevails among the supporters of our charitable institutions with the abuses of the present mode of election of Beneficiaries. The Association numbers, in the short space of twelve months, upwards of two thousand members, subscribers of charities, all of whom are pledged to do their best to put an end to the mischievous operation of "charity electioneering," and it behoves managing committees and wire-pullers generally, who seem blind to the rottenness of the system, under which it appears to them that charity flourishes "like a green bay tree," to look about them in time, lest they should discover that an obstinate resistance has alienated the best part of their friends and subscribers.

It appears from the document alluded to that the operations of the Charity Voting Reform Association have already extended over a wide area; that upwards of 50,000 pamphlets, stating the objects and views of the Society, have been distributed among the subscribers to nineteen of the principal voting charities. It is apparent, therefore, that the time has now arrived for the subscribers themselves to take action in furtherance of the necessary reforms.

The recommendations made by the Committee to those subscribers who desire a reform of the system, but are still willing, for the present, to continue their subscriptions, are as follows:—

"1. That they endeavour to form a committee amongst themselves in each charity to bring the question of reform before their fellow-subscribers, and to urge a selection and classification of cases either by the present managers, or by a special committee, and that they call meetings in each charity for the purpose.

"2. That, in the meantime, they entrust their votes to the managing committees of the respective institutions, under the specific responsibility of investigating and classifying the cases of the candidates before they make use of such votes. Numerous subscribers have already adopted this plan; but it is desired to give to these scattered efforts the force of a combined movement, in the hope that managing committees will of themselves propose measures of reform.

"3. In the event of any managing committee declining to accept such responsibility, and giving no means to the subscribers to bestow their votes properly according to a classified list, it is hoped that subscribers will make their

opinions unmistakably known to the managing committee, in order that a full reform may be obtained, and that, failing this, they will select for their charitable donations institutions which are not open to the same serious evils."

Various papers containing full information on the subject may be obtained from the Secretary of the Charity Voting Reform Association, at No. 30 Charing Cross, to whom subscriptions may be paid in furtherance of the objects of the Association.

## Notes on Current Topics.

### Blood-drinkers.

THE *Laboratory* says that, upon inquiry at slaughter-houses, it is found that there are nearly two hundred persons in the city of New York who are in the habit of drinking blood flowing warmly from oxen, for strengthening purposes and for the cure of certain diseases. A lady is reported to have spoken to an inquirer as follows: "Professor Velpeau, of Paris, prescribed blood for me. I was consumptive, and hastening to the grave. It has prolonged my life fifteen years. I had the utmost repugnance for it at first, but now a half-pint of hot blood from a well-conditioned ox is the greatest luxury of my life. My sister's baby so far has been preserved and nourished with little else but blood. I know twenty persons who drink it in my own neighbourhood, to whom I have recommended it. It has extraordinary effects on some people, especially women, but should not be resorted to unless there is absolute weakness of the system." On a visit of the inquirer to a slaughter-house in Tenth Avenue, near Forty-second Street, he found a delicate-looking woman with a sickly boy holding a glass to the blood which ran from an ox with his throat cut. Both drank two or three glasses in turn, and departed with an appearance of added vigour. The proprietor said, "All last winter we had men, women, and children every morning to drink blood. They always imbibe beast's blood; never the blood of sheep. Some of them wince a bit at first, but, when you close your eyes, blood warm from the beast's neck has just the same taste as warm milk from the cow. We don't charge for the blood, excepting when we sell it to sugar-refiners."

### Puerperal Mortality.

AMONG the Chinese puerperal mortality is held, according to Dr. Jamieson, to rise as high as from one in twelve to one in twenty, an alarming and scarcely credible statement; yet Dr. Thin, lately of Shanghai, believes it to be true. The *Philadelphia Med. and Surg. Reporter* gives some statistics of the city of New York, recently published by Fordyce Barker, which shows a puerperal mortality of one in thirty-five, a terrible result; and on the surely extravagant admission that a quarter or even half of the births were not registered, we have here a very high figure. Faye states the puerperal mortality of Prussia as one in eighty-four; and that of Finland, according to Pippingskjöld, as one in one hundred; and that of Norway, as one in one hundred and thirty-one. Dr. Duncan

found that in Edinburgh and Glasgow, in 1855, the mortality of married women within six weeks after delivery was one in one hundred and seven, at least. From a large collection of data, he estimated the mortality within four weeks after delivery as about one in one hundred and twenty.

#### Legality of Patents to Quack Medicines.

DR. DYRENFURTH, the newly-appointed principal examiner in the class of chemistry, in the Patent Office of the United States, says the *New York Nation*, has recently rejected an application for letters patent for a "medical compound," substantially upon the grounds that a mere mechanical mixture, or assemblage without chemical union, of a number of medical ingredients, possessing well-known properties, is neither such invention nor discovery of a new and useful composition of matter as is contemplated by the law, its preparation involving at most only the exercise of a skill common, in varying degree, to all persons having a knowledge of disease and of the curative properties of drugs and medicines; that, if patents may issue upon this and kindred applications, it follows, such skill being exercised whenever a physician writes an original prescription, that thousands of patentable inventions of this class are made daily, a fatal *reductio ad absurdum*, and that the creation of monopolies restraining others from the exercise of such skill is in contravention of public policy and human welfare.

#### The Sham Diploma Trade.

A LETTER was lately received by the Mayor of Philadelphia, from the United States Consul at Malaga, giving information of the sale of diplomas issued by the American University, in Spain, by the advertisements of Dr. Van Der Vyver, of Jersey, England. An answer was sent, stating that the matter was now in the hands of the Attorney-General, who has applied for a writ of quo warranto against the American University.

#### Tuberculosis not Inoculable.

IN a late communication to the Academy of Sciences of Paris, M. Metzquer tried to upset Villemin's doctrine. For the last five years the author has made experiments (from seventy to eighty), under the direction of Prof. Feltz, of the Faculty of Nancy. He never succeeded in inducing pulmonary consumption in the inoculated animals. The results were capillary embolism, infarctus, vesicular pneumonia, &c., all of which lesions have (the author maintains) been confounded with tubercle. Tuberculosis may, however, be generated in animals (says M. Metzquer) without inoculation of tubercular matter, by rough treatment, bad food, and, strange to say, by inflicting a wound upon them.

#### Congenital Absence of the Corpus Callosum.

DR. MALINVERNI, Professor of Pathological Anatomy at Turin, gives the detailed description of the brain of a man, forty years of age, who died of a gastro-enteric affection. During life he had never exhibited any deficiency or perversion of intellect, and yet after death the corpus callosum and septum lucidum were found to be entirely absent.

#### Cremation as a Cause of Indian Cholera.

THE *Abeille Medical*, in a recent article in opposition to cremation, makes the following remarkable statements:—

Hindoostan, or the peninsular of India, is situated in the tropic zone. The population amounts to nearly 180 millions of people, who all—with the exception of a few millions of Mussulmen—profess the religion of Brahma. The Hindoos are compelled by the worship of Brahma to burn the corpses of their dead, and even the women deem it an honour to sacrifice themselves to the flames on the funeral piles of their deceased husbands. During the thousands of years during which this religious rite has been solemnised how many millions of corpses may there have been burned to ashes! what masses of deleterious gases have there impregnated the atmosphere! what chemical formations and decompositions have there happened by fire!

In our opinion these cremations are the real cause of Asiatic cholera (cholera asphyxia). It is our firm conviction that the poisonous gases generated in the most populous districts for thousands of years is the *only* cause of this terrible disease. This miasm generated beneath the tropic sky, hovers in the air during the day, sinks at night into the lower portions, mixes with the water and various kinds of food, and permeates the lungs in the process of respiration. This poisonous gas spreading in the living organism causes diarrhoea, vomiting, convulsions, and cynosis, the general symptoms of this plague, but which appear suddenly and with greater vehemence as sure symptoms of cholera.

#### The Proposed Hospital for Contagious Diseases at Hampstead.

IN our last we recorded the opposition to the proposed reconversion of the temporary Small-pox Hospital at Hampstead into a permanent hospital for contagious diseases generally by the Vestry. The Vestry has been greatly strengthened in its course by a meeting of the inhabitants, headed by the Board of Guardians, held on Thursday, at which it was unanimously resolved:—

"That this Board desires to co-operate with the Vestry of Hampstead in the attempt to obtain, by every legitimate means, the reversal of the present decision of the Asylums Board to erect on the present site a permanent hospital for contagious and infectious diseases."

Mr. Thomas Bridger, clerk to the Board, was instructed to forward a copy of this resolution to the Hampstead Vestry, which body has appointed a committee to take all necessary steps to obtain a change of site, and to co-operate with other persons willing to assist in this object. The site proposed is now occupied by temporary buildings, which have been used for relapsing fever and small-pox, and are now occupied as an asylum for imbeciles. These buildings, which closely abut on houses, it is now proposed by the Asylums Board to convert into a permanent hospital for contagious and epidemic diseases, at a cost of £80,000.

#### Tooting Cemetery.

MR. HOLLAND, the Government Inspector of Burial Grounds, has held an official inquiry into the serious allegations made respecting the management of Tooting

Cemetery and the way in which bodies were interred. It had been asserted in the first place, that the foot of earth which the authorities require shall be placed on the top of each coffin before another is laid in the same grave, had been dispensed with, or, at least, that it was frequently removed in order that the lower coffin might be seen by the relatives of the deceased person. Both these charges were admitted to be substantially well founded. The foot of earth which should separate the coffins had been reduced in order that one grave might contain a greater number of interments. This practice it had, moreover, been asserted had the authority of Mr. Holland, who expressed himself greatly astonished that he could have been supposed in any way to sanction the infringement of regulations which it was his special duty to see enforced. This assertion appeared to be founded on a misapprehension of what was meant by a "sufficient covering of earth." Mr. Holland, of course, understanding by that expression the stipulated foot, whereas in the opinion of the inspector of the cemetery the sufficient covering to which Mr. Holland had given his approval was four or five inches. In the case of private graves the coffins, it was admitted, were allowed to be laid without any intervening earth. The most serious part of the charge against the Tooting Cemetery Board, however, was that they had never yet adopted any measures for the sufficient drainage of the cemetery. A very insufficient system of mere surface drainage was, it had been stated, all that had ever been done in this way, and in one case, at least, a coffin had been deposited in a grave with water in it sufficient to cover the head of it. This also was admitted by the Burial Board, the chairman of which, Mr. Robert Taylor, explained that the more efficient drainage of the ground had been under consideration, and that communications had been in progress for the past eight years. Mr. Holland remarked that communication with the main drainage was what was required, and intimated that unless some steps were speedily taken in the matter the closing of the cemetery would probably be the result. In the course of the inquiry it transpired that the entire drainage of the cemetery was conducted into a neighbouring ditch, which discharged itself into the river Wendell, from which many of the inhabitants in its vicinity were accustomed to draw supplies. The surveyor to the board, Mr. Macintosh, had prepared plans for a more efficient system of drainage, but nothing beyond had been done, nor was it even decided which of the three propositions should be adopted, and it appeared from the evidence brought before Mr. Holland, that from the situation of the ground the most satisfactory system that was practicable would give only about eight feet of drainage, whereas from the depth of the graves usually dug here some fifteen feet would be requisite. At the close of the inquiry, a gentleman present asked Mr. Holland's opinion on the depth of ground requisite for obviating any unpleasant effluvia from a grave. Mr. Holland, having made experiments on the subject, thought three feet fully met all the requirements.

THE stamp duty on patent medicines in the year ended March 31 last amounted to £99,807, and yielded a net income of £95,388, while the year's duty on medicine vendors amounted to £7,378.

### The New Death Certificate.

As our readers are aware, the form of certificate of death has been for some time under consideration. At length it has been decided to issue a new form, more in accordance with the wishes of the profession, as expressed by us in several articles, as well as by our contemporaries. It is but natural we should object to certify to the age of our patients, and even to the time of their death, when we do not happen to be present, as is so rarely the case. The new books will, it is thought, be ready for the new year, and application for them must be made to the district registrars. They are only to be issued to practitioners whose names appear in the *Medical Register*.

Prior to finally settling the Form, it was submitted by the Registrar-General to the General Medical Council, to the Presidents of the Colleges of Physicians and Surgeons, and to the Master of the Society of Apothecaries, and all have approved of it.

The new Form runs thus :—

#### MEDICAL CERTIFICATE OF THE CAUSE OF DEATH.

[To be given by the medical attendant to the person whose duty it is to give information of the death to the registrar.]

I hereby certify that I attended.....  
whose age was stated to be.....; that I last saw  
h..... on the..... day of....., 18.....; that  
he died\*..... on the..... day of.....  
18....., at.....; and that to the best of  
my knowledge and belief the cause of h..... death was as  
hereunder written.

Cause of Death.	Duration of Disease.			
	Years.	Months.	Days.	Hours.
(a) Primary.....				
(b) Secondary.....				
(c).....				

Witness my hand, this..... day of....., 18.....  
Signature.....  
Registered Qualification.....  
Residence.....

\* Should the medical attendant not feel justified in taking upon himself the responsibility of certifying the fact of death, he may here insert the words "as I am informed."

At the foot of the Form is a caution against the use of it for any purpose whatever except that of delivering it to the registrar; and persons to whom the certificates are given by practitioners will incur a penalty of £2 if they neglect to deliver such certificates to the registrars.

### Scarlatina in Ireland.

THE Registrar-General's returns for the last week hold out no hope of a diminution in the mortality from the long-protracted epidemic of scarlatina which has prevailed in Ireland. The deaths in Dublin for the week which ended on the 14th were 18, or 4 more than in the previous week. In Belfast the disease is assuming very serious proportions, no less than 52 deaths being registered last week, or 16 more than in the preceding. In Thurles also the epidemic is said to be on the increase.

It is stated that the Local Government Board is engaged in preparing a Bill to deal with the question of the purification of rivers.

### Visitation of Examinations.

THE election of visitors by the Executive Committee of the Medical Council took place, as we said, on the 12th. The Committee selected two surgeons and two physicians from each division of the country, the candidates themselves having been nominated by the licensing bodies. For England, four out of the five visitors who acted last year—Messrs. Busk, Power, Barclay, and Bristow—were re-elected, Mr. Holmes not presenting himself again; for Ireland, Mr. William Stokes, Dr. Barton, Dr. Foot, and Dr. Purser were chosen; and for Scotland, Drs. Leishman, Douglas MacLagan, Struthers, and Patrick Heron Watson.

The obvious lessons to be learned from the selection are that the University interest is overwhelmingly predominant in the Executive Committee, and that experience in personal teaching is not considered by the Executive Committee to be a special qualification for a visitor of examinations. Almost every candidate who was chosen is known to have a special University learning, and this is the more to be regretted, because the Universities are the bodies upon whom judgment is to be pronounced this year. We shall see whether University men can find any flaw in University education.

### Analysts' Certificates.

THE episode of Dr. Saunders and the kiln-dried tea has brought in question the morality and the truthfulness of the analysts' certificates which it is customary to append to every announcement of a new alimentary speculation. It will be remembered that the *Times* had quoted a paragraph from Messrs. Sillar and Co.'s Tea Circular, stating that about 150 half-chests of redried tea, which had been under water in the Thames, had been publicly sold, and that the catalogues of sale declared that the "kiln-dried teas" had been analysed by Dr. Saunders, the Public Analyst for the City of London, and pronounced by him fit for sale in the market. One of the members of the Commission having called attention to the paragraph, and produced a sample of "tea-dust" which was alleged to have been taken from the parcel so certified by the public analyst, the matter was investigated by the Sanitary Committee, who, after conferring with Dr. Saunders and inspecting a sample of tea which he produced as a portion of that examined by him, reported that it was "serviceable and good," and had not the slightest resemblance to the sample produced before the Court.

The meaning of this is that the tea-brokers deceived Dr. Saunders into giving a recommendatory opinion by sending him a picked sample of the very best part of the tea, and then fraudulently used the certificate to cover a cargo of half-rotten and worthless rubbish which did not even remotely resemble in quality the tea which the analyst had examined. We have long suspected the existence of this roguish dodge, but the practice has not been publicly exposed until now. We have been accustomed to read the most gushing testimonials of wines and such like articles from men whom we know to be entirely incapable of stating anything which they did not know to be true, and to which our own gustatory acumen gave the lie direct. We believe it to be a common trick to send a specially excellent specimen of an article to a chemist, and then to use his certificate to cover the sale of an enormous

quantity of a product perfectly different, and vastly inferior in quality. Neither Dr. Saunders nor any other analyst is responsible for such a fraud, and the only way the roguish trader can be met is by making the public aware that analysts' certificates are only to be depended on when they are quoted by a firm which is known to be incapable of such a deception.

### Fever in London.

AT the meeting of the Metropolitan Asylums Board, on Saturday, it was shown that the general tendency of the recent epidemic of fever had been to increase in several districts since the last meeting of the Board. At the Homerton Fever Hospital there were 278 cases under treatment, which was a slight increase upon the last return. At the Stockwell Fever Hospital twenty-three fresh cases had been received from the Mitcham Schools, belonging to the Holborn Union, which was the largest number ever received from any single establishment. With this exception fever was about stationary at Stockwell.

### Irish Poor-law Guardianism.

THE Board of Guardians of the Gortin Union, in the co. Mayo, met on Wednesday last, the 18th, for the purpose of making appointments under the new Sanitary Act. The two medical officers of the union, Drs. Conan and Given, were appointed the sanitary officers of their respective districts, the relieving officer was appointed sub-sanitary officer, the clerk of the union was appointed executive officer, and for the office of consultant sanitary officer the workhouse medical officer was chosen. The proceedings throughout were of the most stormy and boisterous nature, although Mr. Hamilton, P. L. G., who was present, used all his endeavours, in his usual mild, courteous, and dignified manner, to "calm the troubled waters," with very little or no success. One enlightened member of the board most pertinaciously insisted that the guardians were not obliged to appoint a consultant sanitary officer at all; and on Mr. Hamilton endeavouring to explain to him that such appointment was made compulsory by the Local Government Board, he, Mr. Hamilton, was very plainly and very promptly informed that he was wrong, and the guardian persisted in his opinion, and refused to vote for any candidate for the consultancy. The allotment of the salaries gave rise to a vast amount of discussion. Some of the guardians were for giving no salaries at all, others would consider £2 10s. a most ample allowance for the doctors, whilst a few would actually have gone so far as to allow them £5. One "gentleman" very candidly remarked, when asked for what sum he would vote, that "he could have no fault whatever to find with the officers, that, in fact, he thought, more efficient officers could nowhere be found; but what," said he, "gentlemen, was I put here for? Why, simply to keep down the rates; and I must try to do so to please those who sent me here; so I now give my vote for the smallest sum." Other guardians who appeared disposed to be a little more liberal were met by the threat that "their constituents would be duly informed of their conduct," meaning that steps would be taken to prevent such



"liberal-minded" men being again elected to the "honourable" post of Poor-law guardian. After a most interminable amount of discussion, in which frequently nearly all the members present were talking at one and the same time, and in which, at another moment, a learned member might be seen holding his neighbour firmly in his place by the coat-tails to prevent him getting once more on his legs, the following scale of salaries for the different appointments was proposed and finally passed—viz.: For each of the dispensary doctors as sanitary officer, £3 per annum; for the sub-sanitary officer, £3 per annum; for the consultant sanitary officer, £3 per annum; and for the executive officer, £5 per annum. The acreage of the Gortin Union is 111,253, and the extent of district over which each sanitary officer will have control, amounts to 55,661, and 55,597 square acres respectively.

Comment is superfluous. The Gortin guardians may be a shade meaner and less educated than the average guardians of other unions; they are, however, by no means *sui generis*, but, on the contrary, are representative of a class which has a place on every board, and which constitutes, in many, the ruling majority. Any one acquainted with the Irish Poor-law system could have told Sir Michael Hicks Beach of their existence, and might thus have saved him from the fatal blunder of trusting his public health legislation to such hands; but we suppose it is the lot of legislators to be kept in the dark upon subjects with which all the world besides is familiar.

### Peculiar Physiological Action of Muscarine.

SCARCELY five years ago two investigators, Drs. Schmiedeberg and Kopp, of Dorpat, published the singular effects of a new alkaloid obtained from poisonous mushrooms, and especially from the *Agaricus muscarius*, whence the name of muscarine which they have given to this poison, and which has just been the subject of a recent communication by Dr. Prevost, of Geneva, to the Société de Biologie.

This young and learned physiologist has shown that when muscarine is injected into the veins of an animal, the heart is arrested in its diastole. The action of this poison is so much the more remarkable, since in such a case the heart is not dead, nor even paralysed, and its contractions can be aroused after several hours' silence.

### The Middlesex Coronership.

It is with great pleasure we announce that Dr. Hardwicke has been elected to succeed the late Dr. Lankester (whose efficient deputy he was for twelve years) in the office of Coroner for Central Middlesex. This is another triumph for the principle we have often urged, that medical men should always be selected for the office. A determined opposition was made by the legal interest; but Dr. Hardwicke obtained a majority of 246 over his lawyer opponent. There was danger when two medical men were in the field, but Dr. Diplock had the good sense to retire before it was too late. He is already coroner for one division, and we were therefore surprised at his coming forward when Dr. Hardwicke was in the field. However, "all's well that ends well," and

Dr. Hardwicke is so well-trying a coroner that it is superfluous to add that the office is in good keeping.

The second legal candidate also retired, leaving Dr. Hardwicke and Mr. Boulton, a member of the firm of Boulton and Sons, solicitors, alone to divide the electors. The polling booths were distributed over Islington, Marylebone, and Clerkenwell. Central Middlesex includes the parishes of St. Pancras, St. Marylebone, St. Mary, Islington, Paddington, Clerkenwell, St. Giles-in-the-Fields, and St. George's, Bloomsbury, St. Andrew, Holborn, and St. George the Martyr, St. John, Hampstead, Hornsey, Friern Barnet, South Mims, Finchley, St. Sepulchre, Saffron Hill Liberty, Liberty of the Rolls, Gray's Inn, Charterhouse, Lincoln's Inn, Staple Inn, Furnival's Inn, Hendon.

Dr. Hardwicke, when the figures were first announced, at ten o'clock, stood with a majority over Mr. Boulton of 24, and hour by hour that majority gradually crept up, until at four o'clock, out of 1,972 votes recorded, Dr. Hardwicke claimed 1,164.

### Coroners.

IN presence of the late election of coroner a number of facts have been collected by the *Globe* as to these officers. We have now 338 coroners in England and Wales, but only 185 of these act for counties or divisions of counties. Cities, towns, and boroughs have 114 coroners of their own, while 39 peculiar jurisdictions, coming under neither of these categories, are also to be met with. The number of inquests held in 1873 was 26,427—a figure decidedly above the average of recent years. Were all our coroners equally occupied, their labours would thus be comprised in the holding of some 78 inquests per annum. Of course, as a matter of fact, the distribution of the work varies enormously. Something like one inquest to every 500 of the population seems required in Middlesex, against one to every 1,000 in Yorkshire, and one to every 2,000 in Huntingdonshire. Curiously enough, however, Huntingdon boasts as many coroners as Middlesex, although the labours of the first five gentlemen do not appear to have reached an average of seven inquests in the year, while the latter five held on the average about 920 each. A Parliamentary return, issued two years ago, gives a good deal of curious information as to the varying areas of the coronerships of the county, the remunerations of the coroners, and the manner in which appointments are made. The peculiar jurisdictions, as they are called, exhibit some variety in this last respect, as the nomination to the post rests frequently with individuals. Thus, in the county of Huntingdon, to which we have alluded, all the five appointments go, as it is stated, "by privilege," the Earl of Sandwich, the Earl of Carysfort, Mr. Fellowes, M.P., enjoying the patronage in three cases, and the Duke of Manchester in the remaining two. The Lords of the Manor appoint in several instances. In Derbyshire we find one appointment made by grant from the Crown, while the right to another—the coronership for the hundred of High and Low Peak—follows the "Possession of the Horn of Ulphus." The Duchy of Lancaster appears in several instances to possess the right to appoint certain coroners, while the patronage falls in one case to the ecclesiastical

commissioners, and in another to the Dean and Chapter of Ely. Norfolk enjoys no less than seven different coroners, all paid out of the county rate, but only two of these are elected by the freeholders of the district; the other posts, some of which are not the least valuable, are in private hands. In Surrey there seems to be one very peculiar jurisdiction indeed, for though its limits are defined to be the portion of the Duchy of Lancaster in Surrey, the return we have quoted declares that the nature of the appointment, whether by charter, privilege, or election, is "not known," and this although the office seems to be at present filled and a salary of £67 3s. is attached to it. Much more uniform is the method of appointment to city or borough coronerships, where election by the Town Council appears the rule, broken, however, in the cases of Tenterden, Rye, and Haverfordwest, where trouble is saved by making the mayor for the time being *ex-officio* coroner.

THE Hospital Saturday collections in Wolverhampton, on the 17th inst., amounted to £1,284 3s. 9d. This sum, it is expected, will be considerably increased when the whole of the returns shall have been received.

THE London School Board is about to send circulars to all Board Schools in the metropolis requesting the managers to give immediate information to the local authority of any cases of infectious disease coming within their knowledge.

THE Marine Department of the Board of Trade have directed an official inquiry to be made into the circumstances attending the appearance of scurvy in a ship entering the Thames.

THE publication of the *Journal of Psychological Medicine*, which was edited by the late Dr. Forbes Winslow for sixteen years, is to be resumed by his son, Dr. Lyttleton S. Forbes Winslow. The journal is, however, to appear only twice annually.

THE medical officer of health for Marylebone reports that the mortality in the parish during the month of October was at the rate of 19.91 per 1000 annually. The deaths from diseases of the zymotic class amounted to 68. An unusual number of malignant cases of scarlet fever were registered, but the epidemic is now dying out.

THE number of births registered in London during the past week was 2,400, and deaths 1,517. The births were 65, and the deaths 81 below the average numbers in the corresponding week of the past ten years. The annual death rate, which in the three previous weeks had been 20, 21, 22, further rose last week to 23 per thousand of population.

THE next meeting of the Pharmaceutical Society of Great Britain will be held on December 2nd, at eight o'clock. The following papers will be read:—"An Additional Method of Testing Glycerine," by Prof. Richard Godeffroy, of Vienna; "On the Preservative Action of Chloroform on Infusions, &c.," by Mr. J. B. Barnes.

A SERIOUS outbreak of scarlet fever is reported in Cheshire. Weaverham, a village of 1,722 inhabitants, has had 165 cases, of which 29 were fatal; Acton 42 cases, three of them fatal; and neighbouring villages have also suffered more or less. The local sanitary authorities are said to be taking measures to prevent the spread of the epidemic.

WE understand, says *The Athenæum*, that the proceedings of the recent European Conference "On Cholera," together with the views of the President, Professor von Pettenkofer, who is also President of the Sanitary Department of the German Empire, will be embodied in a work now in the press by Professor Pettenkofer and Dr. Hime, of Sheffield. It will be published by Messrs. Baillière, Tindall, and Cox.

At a meeting of the Metropolitan Asylums Board, on Saturday, it was resolved to erect a third imbecile asylum for children. The Hampstead Committee were deputed to seek out a suitable spot of land, containing from 100 to 150 acres.

#### RESECTION OF THE LOWER JAW, LEAVING RIM OF SUPPORT.

DR. GARRETSON, in the *Philadelphia Medical Times*, publishes a case operated on by himself some five months back, in which the cure became perfect without any necrosis of a very delicate rim left, and under a constitutional condition which renders a notice of it valuable to a class of practitioners who have occasion, to be informed of precedents in such direction.

The patient, a Miss C., *ætat.* 17, of exceedingly delicate organisation and of *decidedly strumous* tendency, required operation on account of a cysto-sarcomatous tumour, which extended from the first molar tooth of the left side to the first bicuspid of the right, and which involved the body of the jaw to a depth extending midway between the dental canal and the base of the bone. Exposing the parts, as shown by the cut, with the expectation of a necessity for the full section of the bone, it was deter-



mined (seeing that the tumour might be removed and yet a rim left) to risk a return of the disease and the probability of necrosis, together with the possibility for a second operation, rather than produce, without an assured absolute necessity, the hideous deformity consequent on the complete section.

The precedent of interest in the case lies in the fact that here is another instance in which the inferior dental vessels have been removed, and a long span of bone survives, and this under most adverse constitutional condition. The patient is now perfectly well, and is without greater deformity than is seen in any person who has lost the lower teeth. The chin, of course, and the articulation of the remaining teeth have their normal relations preserved, while even the lost parts are capable of being perfectly represented in an artificial denture which I shall shortly prepare for her.

### THE DUBLIN CORPORATION AND ITS SANITARY DUTY.

In connection with their obstructive policy in reference to the Public Health Act, and their stupid inefficiency in the matter of sanitation, we have had occasion to give our readers a faint idea of the atrocious misgovernment under which the citizens of Dublin labour—misgovernment which has driven them into open revolt against the corruption and extravagance of their Town Council. At the last meeting of the Dublin Sanitary Association their attention was directed to a report of the Waterworks Committee of the Dublin Corporation, dated October 2, from which it appeared that a sum of £1,914 had been expended in promoting a private Act of Parliament in opposing one promoted by the Kingstown Commissioners, and in procuring a provisional order. Particular attention was directed to the relative cost of the private Act (£785), and of the provisional order (£1,085), and fears were expressed that unless some check be placed on the expenses of promotion, the provisions of the Public Health Act relating to provisional orders will become a dead letter.

And all this extravagant, and we venture to say, in many instances, entirely useless expenditure, at a moment when the same Corporation can spare no more than £10 a year to the working officers of the Public Health Act! With such facts before us, it is not wonderful that the Irish *Builder* should speak as follows:—

"What a miserable exhibition the work performed by the Corporation makes as against the expenditure incurred in promoting bills, paying law expenses and salaries to a needless staff of officers, as well as heavy pensions to hale and healthy public servants, who are induced to retire to make room for other hangers-on! There is not a city or chief town in Great Britain in which sanitary duties are so badly performed, though the payments to officers exceed by far that paid in other places. Were we to go through all the special and particular duties devolving upon the Corporation, the same shameful neglect could be shown; and what should be a source of profit, and what is a source of profit in other towns and cities, is in the hands of the Dublin Corporation a dead loss! The citizens are taxed to almost the confiscation of their properties to support the worst specimens of municipal rule that ever yet cursed the British Islands.

"We want still another commission—a commission that would bring with it a needful reform. If the Government by a minute of Council were to put the Civic body in commission for a year or two, a lesson would be taught that is much wanted. Short of this, however, a purification of the Town Council is urgently needed, as well as that of the Liffey; and if the citizens follow up the movement they have begun, honest and practical men will be returned as their representatives."

### THE IRISH SANITARY OFFICERS AND THEIR SALARIES.

At a meeting of the Drogheda Corporation a report was adopted, in which it was recommended that, having regard to the fact of the salaries of the officers before mentioned having been recently increased by the Poor-law guardians, and which increase was granted immediately previous to the passing of the new Sanitary Act; and further, that the Poor-law guardians, at their meeting held on the 22nd inst., declined to further augment the salaries of said officers; we would most respectfully suggest that the Council do not resolve any additional increase to the salaries of said dispensary officers. The following extract from a letter of the Local Government Board may be read in connection with the above:—

"It will be borne in mind that by the Act of Parliament it [was] provided that the local sanitary authorities should in the first instance determine the salaries, but that the power of finally adjusting them resides in the Local Government Board, subject to approval by the Lords Commissioners of the Treasury. *The Local Government Board are prepared to perform their part of this duty with a full sense of their responsibility in this matter, and under the impression that, inasmuch as the Act of Parliament has imposed on dispensary medical officers additional statutory duties, it is the business of the Local Government Board to see that proper remuneration is provided for these additional duties.*"

AN extraordinary "rig" of the market in the articles of iodine and quicksilver has been going on for a long time, and has now almost reached a climax. Quicksilver is now quoted at £25 per bottle, and is still mounting. The *Chemist and Druggist* says that Chilian iodine is now on the market in considerable quantity, and seems likely to prove a useful check on the extravagant prices which the combination of makers has at times forced from buyers.

THE Council of the Society of Arts announces that it has made arrangements for the delivering of the following courses of Cantor Lectures in the forthcoming session: "Alcohol, its Action and its Use," by Dr. B. W. Richardson, F.R.S.; "The Material, Construction, Form, and Principles of Tools used in Handicraft," by the Rev. Arthur Rigg; and "Some of the Forms of the Modern Steam Engine," by F. J. Bramwell, F.R.S.

## Correspondence.

### DR. LANKESTER AND THE CORPORATIONS.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—In the biographies of the late lamented Dr. Lankester an important matter is omitted that had a great influence on his career, for it fully accounts for his not "laying himself out for practice,"—to use the words of the *Lancet*—and for his being "shut out" as Physician to St. Mary's Hospital. This, according to the orthodox system of election, after his rejection at the London College of Physicians, was a matter of course.

At this important crisis, when we are bound hand and foot to the corporations, by means of an unrepresentative Medical Council, a brief recital of the circumstances, as published by himself after his rejection, 1847, in a pamphlet now before me, cannot fail to be useful and instructive.

I give a brief outline of the occurrence which is related in the above-named pamphlet.

Dr. Lankester was distinguished for great industry and talent; he had obtained honours in ten of the classes at University College, and had contributed numerous papers to the medical journals. Dr. Lankester passed the examination for the extra (a) licence at the College of Physicians in 1841, and in 1847 he presented himself to be examined for the licence, believing that as he was a member of the College, and had passed one examination, he would only be called upon to answer "practical" questions. The doctor, however, was rejected, and the most amusing part of the affair was that one of the examiners, whom he supposed had a great share in his rejection, had six years before given him the following certificate: "*I can fully testify to his competency to fill the office of Physician to a London dispensary with credit to himself and much advantage to the objects of the institution.*" Dr. Lankester, who lectured on *materia medica*, was also examined by a rival lecturer on this subject at a neighbouring school (Parliamentary Evidence, 1847).

The subjoined is from Dr. Lankester's pamphlet:—

"If I were a young man who had only had the five years' study which the College requires, I might consistently have been sent back for a year; but what must be thought of the value of the College examination which supposes that the knowledge it requires may be got up in twelve months, but could not be gained by eighteen years of hard study and diligent observation. At the same time, however, I am not ignorant of the fact that there are gentlemen in London who in less than a year would engage to prepare me, as they have done hundreds of other members of the College, in such a manner as to ensure my passing their examinations. I have never, however, condescended to the practice of cramming in the four examinations that I had previously submitted and passed. I conscientiously regard myself at this moment as fitted to practise my profession, and if the College examinations are of a nature rather to test the schoolboy's qualifications which may be got up by a cram than those which have been gained by reading and experience at the bedside, I can only express my regret that public confidence should have been given to examinations which every member of the College must feel are not worthy of it."

Believing, Sir, that this rejection at the London College of Physicians had much influence on his subsequent career, and believing also that under the circumstances named it redounded rather to his *credit* than to his *disgrace*, I ask you to insert this letter.

Yours obediently,  
EDWARDS CRISP, M.D.

29 Beaufort Street, Chelsea, Nov. 11, 1874.

#### PEN VACCINATOR.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—Under the head of "New Inventions," and with the name of a "Pen Vaccinator," Dr. R. Harvey Hilliard presents to the profession, in your issue of October 28th, a new instrument for vaccination.

Permit me to point out that this so-called new invention is simply a slightly modified form of an instrument invented by myself upwards of eighteen years ago, and to which I gave the name of the "Vaccine Insitor." The only alteration effected by Dr. Hilliard appears to consist in making the shoulders of the blades broader near the points, in consequence of his adapting the instrument for scarification in place of making a punctured wound—the object for which I designed the "Insitor," for a full description and drawing of which I beg to refer your readers to the *British Medical Journal* of September 27th, 1856.

I am, Sir, your obedient servant,

GEORGE EDWARD NICHOLAS, M.D.,  
Medical Officer of Health for Wandsworth.

2 and 3 Church Row, Wandsworth,  
November 9th, 1874.

P.S.—Since writing the above, Messrs. Coxeter and Son, of Grafton Street East, makers of the "Insitor," have kindly furnished me with the subjoined drawing.—G. E. N.



(a) To practise as a physician seven miles out of London, but not within the sacred circle.

## Medical News.

**Royal College of Surgeons of England.**—The following gentlemen, having passed the required examination for the diploma, were duly admitted Members of the College on Monday, Tuesday, and Wednesday last:—

Anderson, William S., M.B. Glas., Middlesborough.  
Barlow, John, Manchester.  
Brummitt, Robert, L.S.A., Banbury, Oxon.  
Buckell, Ernest H., Chichester.  
Bull, William H., Hammarsmith.  
Callcott, James T., Newcastle-on-Tyne.  
Carey, John T., Guernsey.  
Chadwick, Alfred, Manchester.  
Cobb, Robert, Rochester.  
Collet, Golding Bird, Worthing.  
Derington, John M., Leicester.  
Eastall, Henry F., L.S.A., Blackheath.  
Ferrier, John C., Dublin.  
Fox, Richard H., L.S.A., Stoke Newington.  
Gibb, Robert C., Jamaica.  
Gill, Edmund R., L.R.C.P. Ed., Torquay.  
Hart, Philip Neville, M.B., Catton Vicarage, Norwich.  
Herapath, Charles K. C., Bristol.  
Johnston, Wingate K., Anerley, Surrey.  
Joseph, Sidney W. J., St. Leonards.  
Kebbell, William, Brighton.  
Lamb, William, L.R.C.P. Lond., Northampton.  
McCreedy, John A., M.D., New York.  
Mackenzie, John K., L.R.C.P. Ed., Bristol.  
Maples, Reginald, Spalding, Lincolnshire.  
Putts, Edward, L.S.A., Birmingham.  
Powell, Harold M., L.S.A., Wandsworth, Surrey.  
Poynder, George F., Brandon, Norfolk.  
Roe, Frederic L., Eccles, Lancashire.  
Rossiter, George F., L.S.A., Taunton.  
Rygate, Brougham R., L.S.A., Cannon Street Road.  
Sandiford, Robert F., L.R.C.P. Ed., New Ormond Street.  
Scatliff, John M. E., M.B., Brighton.  
Smith, Herbert N., L.R.C.P. Lond., Brighton.  
Squire, William, L.S.A., Hanwell.  
Stelfox, John B., Leigh, Lancashire.  
Stewart, William R. H., Weymouth Street.  
Swift, William J. C., Ely, Cambridgeshire.  
Symonds, Horatio P., L.S.A., Oxford.  
Taylor, Daniel P. H., Sierra Leone.  
Thomas, George H. W., Stoke, Plymouth.  
Tomlin, Robert F., L.S.A., Devonport.  
Treharne, John L., L.S.A., Weston-super-Mare.  
Treves, Edward, King Edward's Road.  
Whitworth, Edward, St. Agnes, Cornwall.

#### NOTICES TO CORRESPONDENTS.

OUR attention has been called to a circumstance which seems to require notice, not only on ethical, but on legal grounds. We have reason to believe that the duty of apothecary to the Galway County Infirmary has, for the last eighteen months, been discharged by a person who holds no qualification whatever, and that he is recognised and salaried as such by the Grand Jury. The circumstances of his appointment we believe to be the following: For very many years the appointment was held by Mr. Patrick Staunton, a licentiate apothecary, who died, leaving his nephew, who is now a practitioner in Galway, in possession of his business and in discharge of his official duties. This gentleman continued to act as apothecary to the Infirmary for a long period, and appeared from year to year in the list of officers of the institution. One morning, about a year and a half since, on going to the Infirmary, he found another person installed in office by order of Dr. Browne, the surgeon, without any notice whatever to him. From personal reasons Mr. Staunton has refrained from complaint, and permitted the unqualified practitioner to remain in possession; but it is not for us to allow such an act of injustice and despotism to be perpetuated or to keep silent upon an appointment which is neither legal in itself nor consistent with the just rights of the profession. We shall be glad to be enabled by Dr. Browne's explanation to modify the statement which we have made; but if it appear that our version of the matter be a correct one, we shall certainly consider it our duty to call the attention of the Apothecaries' Hall and the Grand Jury to the matter.

**EMBRUO.**—In Mr. O'Connor's letter, published in our issue of November 18th, at page 451, commencing at "In my opinion," the following should have been the order of words: "In my opinion the cause of this paradox is that during life the admixture of saliva directly neutralises, by its alkalinity, the acidity of the gastric juice; but this neutralisation takes place only on the walls of the stomach, along which the saliva glides in a quantity sufficient for that purpose; also that the gastric juice is, as it were, jettied out from its follicles by the aid of those muscular fibres which are found in the matrix of each, and thus mixes with the contents of the stomach. And again, I think that after death, if the saliva in sufficient quantity could reach the stomach, no post-mortem digestion would take place. The reasons which I

adduce in aid of this theory are—1st. Dr. Wright says the alkalinity of the saliva bears a direct proportion to the acidity of the gastric juice secreted at the same time. 2nd. Blondlot shows," &c., &c.

**MEDICAL JOKES.**—Our contemporary, the *Philadelphia Medical and Surgical Reporter*, publishes in its last a number of witticisms from the Greek of Hierocles. The following are lively specimens:—An operator, having dressed a scalp wound, laid the patient on his back and poured water into his mouth to see if the plaster was water-tight. To another of these practitioners a patient complained that he could not lie down, nor sit, nor stand without pain. "There is nothing left for you, then," said the Greek Abernethy, "but to be—hanged."

**COMMUNICATIONS, ENCLOSURES, &c.**, have been received from—Dr. Stevenson Macadam, Edinburgh. Dr. Shadd, Washington. Dr. Edwards Crisp, Chelsea. Mr. Rivington, London. Dr. Hughlines Jackson, London. Dr. Ormsby, Dublin. Dr. Kelly, Dublin. Mr. Allingham, London. Dr. Burnes, London. Mr. Milne, Dublin. Mr. Jabez Hogg, London. Mr. Homersham, Dr. Carpenter, University of London. Mr. John Hadden, Horncastle. Dr. Jukes Styrup, Shrewsbury. Mr. Ashton, Brighton. Dr. Dill, Chorlton. Dr. Muter, Kensington. Dr. Campbell Black, Glasgow. Dr. Heaton, Leeds. Mr. Walker, St. Andrew's University. Dr. Ethridge, Chicago. The Secretary of the Astley Cooper Prize Fund. Mr. Ruding, London. Mr. Davenport, London. Mr. Porteous, Glasgow. Dr. Cameron, Dublin. Mr. Peacock, Pimlico. The Registrar-General. Mr. Lawson Tait, Birmingham. Dr. Alexander Duncan, Glasgow. Mr. M. Coleman, Dulwich. Mr. Cadbury, Birmingham. Dr. Langley, London. Dr. Bayes, London. Dr. Higginson, Donaghadee. Mr. G. W. Jones, London. Dr. Handsel Griffiths, Dublin. Dr. Bathurst Woodman, Finsbury. Dr. Birkbeck Nevins, Liverpool. Dr. De Aguiar, Portuguese Embassy. Dr. Williams, Colchester. Dr. Leary, Demerara. Dr. Foster, Dr. George Harley, London. Mr. Phillips, Hornsey. Dr. Davis, Swords. Dr. Supple, Colton. Dr. Tilton, Stonehouse. The Secretary Medical Society of London. Dr. Lothian, Glasgow. Mr. Allingham, London. Mr. Bake, Bloomsbury. Mr. Norton, London. Mr. Fraser, Whitechapel. Mr. G. W. Woodman, Finsbury. Mr. Francis, London. Dr. Salter, London. Dr. Lane, Bishop's Castle. Professor Ulrich, Bremen. Dr. Hime, Sheffield. Mr. Curtis, London. Mr. Morgan, London. Mr. Hobson, Forest Hill. Dr. McDonnell, Limerick. Mr. Fraser, Bromley. Dr. Lyttleton Forbes Winslow, London, &c., &c.

#### MEETINGS OF THE LONDON SOCIETIES.

**WEDNESDAY, Nov. 25th.**—Hunterian Society, 8 p.m. Dr. Burnes will exhibit a Specimen of Solidified Fat drawn from a Cyst by the Aspirator. Mr. Adams, "On a Case of Gunshot Wound of the Abdomen." Dr. Daldy, "On Fever."

**FRIDAY, Nov. 27th.**—Quekett Microscopical Club, 8 p.m. Mr. J. E. Innes, "On Personal Equation with reference to Microscopy." Clinical Society of London, 8 p.m. Dr. Poore will exhibit a Patient with Paralysis of the Serratus Magnus Muscle. Mr. Hulke, "Notes of a Case of Poisoning by Chloral." Mr. H. Lee, "On a Case of Tumour removed by Elastic Ligature." Dr. R. J. Lee, "Notes of a rare form of Cutaneous Disease in a Child."

**MONDAY, Nov. 30th.**—Medical Society, 8 p.m. Ordinary.

**TUESDAY, Dec. 1st.**—Pathological, 8 p.m. Ordinary.

**BOOKS, PAMPHLETS, AND MEDICAL JOURNALS RECEIVED.**  
The Elements of Embryology. By M. Foster, M.A., F.R.S. London: Macmillan and Co.

The Polarization of Light. By W. Spottiswoode, M.A., F.R.S. London: Macmillan and Co.

On Tumour of the Lower Jaw. By C. F. Maunder, F.R.C.S. London: J. and A. Churchill.

Steiner's Diseases of Children. By Lawson Tait, F.R.C.S. London: J. and A. Churchill.

Frey's Histology of Man. Translated by Arthur E. Barker, F.R.C.S.I. London: J. and A. Churchill.

Dental Pathology. By S. J. Salter, M.B., F.R.S. London: Longmans and Co.

The Diseases of Tropical Climates. By J. A. B. Horton, M.D. London: J. and A. Churchill.

The Million on the Rail. By G. W. Jones.

Visiting List for 1875. London: John Smith and Co.

Beeton's Cab Fare. London: Ward and Lock.

Journal de Thérapeutique. New York Medical Journal. Journal de Médecine et Chirurgie. Le Progrès Médical. The Clinic. The Spirit Circle. The Belgravian Annual. Jahres-Bericht in Bremen.

#### APPOINTMENTS.

**BARBOUR, Mr. J. M.**, Fever Assistant at the Glasgow Royal Infirmary.  
**CLAYTON, N. G.**, L.R.C.P. Ed., Superintendent Medical Officer of Health and a Sanitary Officer for the Galway Rural Sanitary District.

**CUTHBERT, A. M.D.**, Superintendent Medical Officer of Health and a Sanitary Officer for the Londonderry Rural Sanitary District.

**DAWSON, Mr. J.**, a House Physician to the Glasgow Royal Infirmary.

**DOBSON, R. J.**, L.R.C.S.I., Superintendent Medical Officer of Health and a Sanitary Officer for the Mohill Rural Sanitary District.

**DUTTE, B. L.**, L.C.M., a House Physician to the Glasgow Royal Infirmary.

**EDMUNDSON, J. M.D.**, L.K.Q.C.P.I., M.R.C.S.E., Resident Medical Superintendent of the Ennisceorthy District Lunatic Asylum.

**GREENFIELD, W. S. M.P.**, M.R.C.P., Demonstrator of Morbid Anatomy and Practical Pathology to St. Thomas's Hospital Medical School.

**HAMILTON, Mr. J.**, a House Physician to the Glasgow Royal Infirmary.

**HAYES, P. A.**, L.R.C.P. Ed., L.R.C.S.I., Junior House Surgeon at the Royal Free Hospital.

**HEARN, G. M.**, L.K.Q.C.P.I., Superintendent Medical Officer of Health and a Sanitary Officer for the Bawnboy Rural Sanitary District.

**JAMISON, D. M.D.**, Sanitary Officer for the Newtownards Sanitary District.

**LIVINGSTONE, W. O.**, C.M., M.B., a House Surgeon to the Glasgow Royal Infirmary.

**MCDONNELL, CHARLES**, L.R.C.P. Ed., Superintendent Medical Officer of Health for the Glin Union.

**M'BRAID, A.**, L.R.C.P. Ed., Superintendent Medical Officer of Health for the Newry Urban Sanitary District.

**M'CORKINDALE, D. C.M.**, a House Surgeon to the Glasgow Royal Infirmary.

**MARTIN, W. B.**, L.R.C.S.I., Superintendent Medical Officer of Health for the Newtownards Urban Sanitary District.

**MUIR, Mr. M. M. P.**, Assistant Lecturer and Demonstrator on Chemistry at Owens College, Manchester.

**MUIR, W. C.M.**, a House Surgeon to the Glasgow Royal Infirmary.

**O'NEILL, P. L.**, L.K.Q.C.P.I., L.R.C.P. Ed., Medical Officer to the Workhouse Infirmary and Fever Hospital of the Athy Union, Co. Kildare.

**PINNOCK, R. D. C.M.**, a House Surgeon to the Glasgow Royal Infirmary.

**ROSS, A. M.D.**, Superintendent Medical Officer of Health and Sanitary Officer for the Ballymena Urban Sanitary District.

**RUSSELL, P. C. M.B.**, Sanitary Officer for the Lurgan Urban Sanitary District.

**SAMPSON, F. C.**, L.R.C.P. Ed., Superintendent Medical Officer of Health for the Scariff Rural Sanitary District.

**SCOTT, W. J. M.B.**, Assistant Surgeon to the Western Infirmary, Glasgow.

**SHAW, W. M.D.**, Superintendent Medical Officer of Health for the Lurgan Urban Sanitary District.

**SMITH, Mr. D. T.**, a House Physician to the Glasgow Royal Infirmary.

**SPEARING, A. M.D.**, Superintendent Medical Officer of Health for the Antrim Rural Sanitary District.

**STUTCLIFFE, Mr. W. H.**, a House Physician to the Glasgow Royal Infirmary.

**TAGERT, R. M.**, M.D., Superintendent Medical Officer of Health for the Carrickmacross Rural Sanitary District.

**TELFORD, Mr. J. C.**, a House Surgeon to the Glasgow Royal Infirmary.

**TOWNSEND, R. H. M.B.**, Superintendent Medical Officer of Health for the Ennistimon Rural Sanitary District.

**WALL, J. M.D.**, Superintendent Medical Officer of Health for the Cork Rural Sanitary District.

## Marriages.

**JACKSON—WAN-VESTRANT.**—On the 17th inst., at St. Mary's, Newington, J. B. Jackson, L.R.C.P., &c., of Birmingham, to Angela Mariana, youngest daughter of the late Ottaviano Wan-Vestrant, of Rome.

## Deaths.

**BARNES**—On the 20th November, at 81 Grosvenor Square, London, Eliza, the beloved wife of Robert Barnes, M.D.

**CRAMBERS**—On the 14th November, at Cloverhill, Sligo, James Walker Chambers, M.D., Inspector-General of Hospitals, and late of the 35th Regiment, aged 63.

**DUTTON**—On the 10th November, James Dutton, M.R.C.S.E., of Theresa Place, Hammersmith, aged 56.

**FITZGERALD**—On the 30th October, at Lahore, India, R. G. Fitzgerald, L.R.C.S.I., late of the 36th Regiment.

**HAWKINS**—On the 8th November, J. S. Hawkins, M.R.C.S.E., of Tredegar Place, Bow, aged 37.

**PEARLESS**—On the 19th November, after a few days' illness from diphtheria, Charles Durrant Pearless, M.R.C.S.E., L.R.C.P.E., of the Vicarage, Sevenoaks, aged 32.

**SURGICAL SOCIETY OF IRELAND.**—The FIRST MEETING of the SOCIETY will take place on FRIDAY EVENING, 27th NOVEMBER, 1874.

Chair will be taken at half-past Eight o'clock precisely.  
B. WILLS RICHARDSON, F.R.C.S.I., } Hon. Sec.  
HUMPHREY MINCHIN, F.R.C.S.I., }

Royal College of Surgeons, Dublin,  
25th day of Nov., 1874.

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The deceased Officer referred to was a Doctor in the British Army, and at the time of his death held the position of Inspector-General of Hospitals; his daughter, one of a large family, is precluded from obtaining relief from the Medical Benevolent Fund of Ireland in consequence of being married; whilst her husband is at present a patient in the Adelaide Hospital, and we hope soon to procure his admission into the Hospital for Incurables. For these reasons we ask your kind attention to this appeal. The smallest subscriptions will be received and acknowledged by

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# The Medical Press & Circular.

"SALUS POPULI SUPREMA LEX."

WEDNESDAY, DECEMBER 2, 1874.

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## Original Communications.

### ON THE SCIENTIFIC AND EMPIRICAL INVESTIGATION OF EPILEPSIES.

By J. HUGHLINGS JACKSON, M.D., F.R.C.P.,  
Physician to the Hospital for the Epileptic and Paralysed, and to the London Hospital.

#### CHAPTER III.

#### ON CLASSIFICATION AND ON METHODS OF INVESTIGATION.

It has been said that we can best judge of a person's character by what he finds laughable. No doubt we may best judge of a man's intellect by his classifications, for, as Spencer says ("Psychology" sec. 309-316), Classification is really a process of Reasoning. When, he says, we think of the objects compared, we classify; when we think of the relations betwixt them, we reason. From a person's classifications we judge of his "form of mind." We may adapt and apply Spencer's statements thus: In Investigating cases of nervous disease, we are really Classifying them or their symptoms. From all points of view Classification is of vast importance. I shall, therefore, consider it in its most general bearings, as well as specially for the present subject of Epilepsies.

When, in the first Chapter, I spoke of the anatomical and physiological investigation of epilepsies, I mentioned that we require Clinical Entities for practical purposes. This admission was certainly contrary to the spirit of the quotations contained in that chapter. In short, since the papers quoted from were written, I have modified my opinion so far as to hold that we require two kinds of classification. I believe I have been much influenced in this matter by Dr. Moxon. The following quotation is from an article by him:—

"When we are dealing with the public or social functions of names we must keep in view the distinction between a science nomenclature and an art nomenclature. The aim of a science is the increasing and unlimited knowledge of the things it concerns itself with; a science

seeks out and names with no other object than to know. The scope of any art is, on the contrary, limited and prescribed; it has its proper sphere of work, and it must borrow from the nomenclature of the sciences which it rests upon such names only as are useful for its practical purposes. Two opposite principles, then, must govern the construction of a nomenclature for use in an art such as that of medicine. These principles are—

"First. That every subject which it is important that the followers of the art should be able to mutually recognise, or to communicate to each other, should be embodied in a distinct and suitable name.

"Second. That names should not be introduced into the nomenclature of the art except on account of their applications to subjects of practical importance in the purposes of the art.

"Another and a very obvious principle is, that the names adopted should be so far carefully chosen that they may not contradict or misrepresent the actual facts of the subjects to which they are applied." (Dr. Moxon, "On the Necessity for a Clinical Nomenclature of Disease," "Gay's Hosp. Reports," vol. xv., p. 482.)

We are in medical art and science, as in other arts and sciences, obliged to make arbitrary divisions where there are no clear divisions in Nature. Thus, at the close of the last chapter, I spoke of the arbitrary standards medical men make for describing cases in which there are different degrees of affection of consciousness ("confusion," "stupor," "loss of consciousness," and "coma"). There really occur all shades of affection of consciousness (see page 411, and also further in this Chapter). But such arbitrary divisions as those just mentioned are absolutely necessary for clinical purposes. Let me give another illustration; I have a double purpose in giving it.

There are from lesions of different degrees of gravity in and of the cerebral hemisphere, near to the corpus striatum all degrees of defect of language, from a slight ataxy of articulation to a state in which there is loss of all power of expression, whether active (intellectual), or passive (emotional). For this reason I have strenuously objected to the abrupt divisions made by nosologists. The divisions usually made are exceedingly

abrupt, passing from physiology into psychology at a bound (ataxy of articulation—anatomico-physiological phraseology—and “loss of memory for words”—psychological phraseology). But I found that I was making arbitrary divisions too. I found myself speaking of “an ordinary specimen of loss of speech.” Whilst as strongly as ever I believe that from different degrees of damage of the left corpus striatum and adjacent cerebral hemisphere there result all degrees of defect, from a slight ataxy of articulation to entire loss of power of expression, I admit that we must have arbitrary divisions of affections of language for clinical purposes. For all that, I insist that the classification of defects of language on a mixed method of physiology and psychology is an illegitimate one. To remark on this point is my chief reason for giving the illustration. Where the expression “loss of memory for words” would be used I should say there is “defect of speech,” or that the patient “makes mistakes in words.” These simpler expressions are really quite as definite, though they sound less definite; they have no technical ring. It may be said that they amount to the same thing. Practically they do not; they have no psychological associations. The expression, “loss of memory for words” takes the symptom out of the category of such other nervous symptoms, as hemiplegia. For there is no conceivable community betwixt loss of “memory” and loss or defect of “movement,”—betwixt “loss of memory for words” and ataxy of articulation—not enough in common as a basis for the widest contrast.

I must, indeed, at the beginning of a Chapter on Classification, urge strongly that we are to rid ourselves as much as possible of psychological bias in what is an anatomical and physiological inquiry. I do not mean that we have no concern at all with psychology. On the contrary, it is perfectly obvious that it is impossible for us to begin to study the anatomical *substrata* of mind without prior psychological analysis.

On this matter I will quote Mill: “And even if that hypothesis [phrenological] were true, psychological observation would still be necessary; for how is it possible to ascertain the correspondence between two things by observation of only one of them? To establish a relation between mental functions and cerebral conformations requires not only a parallel system of observations applied to each, but (as M. Comte himself, with some inconsistency, acknowledges) an analysis of the mental faculties.” (Mill on “Comte and Positivism,” p. 66.)

But I urge again that our concern with states of mind is indirect. We start with the assumption that all mental states have material bases, and our direct concern in such an inquiry as this is with the latter only. Clearness on this matter is of very great importance for our subject, and of immense importance when speaking of classifications and methods of investigation of diseases of the higher nervous centres.

There are two ways of investigating diseases, and two kinds of classification corresponding thereto, the empirical and the scientific. The former is to be illustrated by the way in which a gardener classifies plants, the latter by the way in which a botanist classifies them. (a)

The former is, strictly speaking, only an arrangement. The gardener arranges his plants as they are fit for food, for ornament, &c. One of his classifications of ornamental plants is into trees, shrubs, and flowers. His object is the direct application of knowledge to utilitarian purposes. It is, so to speak, practical. The other kind of classification (the classification properly so-called)

(a) “Each science or art forms its classification of things according to the properties which fall within its special cognizance, or of which it must take account in order to accomplish its peculiar practical end. A farmer does not divide plants, like a botanist, into dicotyledonous and monocotyledonous, but into useful plants and weeds. A geologist divides fossils, not like a zoologist, into families corresponding to those of living species, but into fossils of the palæozoic, mesozoic, and tertiary periods, above the coal and below the coal, &c. Whales are or are not fish, according to the purpose for which we are considering them.” (Mill’s “Logic,” vol. i., p. 275.)

is rather for the better organisation of existing knowledge, and for discovering the relations of new facts; its principles are Methodical guides to further investigation. It is of great utilitarian value, but not directly.

The difference here is plain, because the gardener and the botanist are different persons. But in our profession, the same person has to Classify for the organisation and advancement of his knowledge, and to make an Arrangement for direct utilitarian purposes of daily life. The reader will now see that there was no cynicism intended in the illustration just given. We require two classifications, or rather an arrangement and a classification. An arrangement corresponding with that of the gardener is essential for the practice of our profession. It is a technical or artificial classification. A scientific classification is necessary for the organisation and development of our knowledge of disease. It is a natural classification, and is thus a means of investigation.

We require for practical purposes types as foundations for arrangement. (a)

On this subject I shall quote largely from Handfield Jones (*see* Appendix). We require clinical entities, such as locomotor ataxy and idiopathic epilepsy. As the matter is one of exceeding great importance, I will illustrate the two kinds of classification, or, what is fundamentally the same thing, the two methods of investigation by several examples. Some of them are purposely taken from cases of other nervous diseases or symptoms than those resulting from epileptic discharges.

In a case of disorderly walking we endeavour to determine whether the gait resemble that which authorities have described as the gait of typical Locomotor Ataxy, or that of typical Cerebellar Reel. We might conclude from examination of a case as follows: This patient has tumour of the cerebellum, because (besides having severe pain in the head and double optic neuritis), whenever he walks, he walks with his legs apart, and reels from side to side or from back to front—walks as if drunk; he has no ear disease. This is the empirical or clinical study. Scientifically, we seek to know in what way the patient’s walk differs from healthy walking. To say that it is a difficulty in co-ordinating the movements of locomotion is a merely verbal explanation; it is objectionable as an explanation. But clinically, as distinguishing the motor symptoms from paraplegia, the nomenclature is useful. The “explanation” is given in the untechnical statement that “the patient reels.” The scientific investigation would demand prior knowledge of the play of the muscles of the trunk and legs in the various positions of healthy walking. It is a study of symptoms and diseases as they show departures from healthy states; this is only another way of saying that it is a study of cases as anatomical and physiological experiments on the nervous system. The reel would be—this is my belief—found to be a departure from healthy walking on account of feebleness of movements of those muscles which brace up the spinal column. Assuming the correctness of this explanation, we can make the more scientific use of the case. We see more clearly the affinities of the reel; we see that being, dependant (b) on palsy it is far more like hemiplegia than, for example, like chorea. In fact, the hemiplegic man has lost a certain number of “co-ordinations of movements” of his face, arm, and leg of one side. The patient who reels from disease of the cerebellum has lost a certain number of “co-ordinations of movements” of his spine, and later on in the disease, of his legs. On the empirical or clinical view, this is not manifest; indeed, the reel and chorea are often spoken of

(a) “By a type, Whewell meant a well-selected average member of a class, removed alike from all extremes, a concrete embodiment of the class, to be used for purposes of identification in preference to any verbal definition. The motive was the existence of *anomalous* members of many groups in Natural History.” (Bain’s “Logic,” Induction, p. 191.)

(b) I say “dependant on,” as no doubt there is a compound defect from the spinal paresis, just as there is from paresis of an ocular nerve. (*See* foot-note later, on Vertigo.)

as if they were similar disorders of co-ordination. Their resemblances are most superficial; they are fundamentally different, not only in the very superficial way that they are affections of different regions of the body, but in that the central changes in one are those of loss of function (a palsy), and in the other those of over-function (owing to a "discharging lesion"). Thus considered, the case can be compared with tetanus, just as a case of hemiplegia can be compared with a case of hemi-spasm. In tetanus there is a discharge first and most upon those muscles which serve first and most in locomotion, that is, upon the muscles of the spine and legs and upper parts of arms—that is upon those muscles which are first and most affected in the Cerebellar Reel.

Let me now illustrate the differences by taking a series of symptoms belonging to our subject. I believe that epileptic vertigo, epileptic *petit mal*, and epileptic *grand mal*, are, when regarded from an anatomical and physiological point of view, simply differing degrees, that is to say, that they depend on different strengths of discharge, beginning in and spreading from the same parts of the brain. The discharge in each begins in the very highest centres of the cerebral hemispheres, that is to say, in the anatomical substrata of consciousness. If it be very slight there is vertigo only, if stronger there is loss of consciousness, and if very strong there is convulsion also. This is the scientific classification and method of investigation. (a)

The relations betwixt loss of consciousness and convulsion have already been spoken of implicitly in Chap. I., Pt. II., p. 349 and 350, and explicitly in Chap. II., p. 410. We now speak more in detail, and take into consideration the third symptom—vertigo. Vertigo, like convulsion, is a motor symptom, and since in *petit mal* there is loss of consciousness, the statement that there are degrees betwixt epileptic vertigo, *petit mal*, and *grand mal*, may seem at first glance strange. Let us consider the question raised.

A word, says Lewes, is not only a symbol of a thing, it is also a centre of association. The expression "loss of consciousness" has evidently very strong psychological and very slender physiological associations; what it automatically arouses are chiefly thoughts about "memory," "volition," "will," &c. Thus, there is a feeling that comparisons such as the one spoken of are comparisons attempted betwixt mental states and physical states. But the associations which the expression "loss of consciousness" should arouse in an inquiry like this, are thoughts of other nervous symptoms, which thoughts would lead to such comparisons as those of morbid conditions of the material basis of consciousness with those conditions of inferior centres which cause other nervous symptoms. We have to deal with loss of consciousness as a symptom due to implication of nervous centres which are, except in degree, just like other nervous centres. The centres which are the anatomical substrata of consciousness also represent impressions and movements, or rather, they represent in greater complexity, &c., the impressions and movements represented in all lower centres, being evolved out of those centres. They thus represent the whole organism, and represent it as a whole in adjustment to its environment. On this basis the comparison is legitimate. Physiologically, loss of consciousness is a loss of adjustment of the organism as a whole to its environment, being a loss of use of the nervous processes by which that adjustment is made. Vertigo is a defect in that adjustment; it is a motor symptom. It is in this way that we trace its relations through loss of consciousness to convulsion.

If we consider the facts of the vertigo attending palsy of the ocular motor nerves, we see plainly that it is a motor symptom. (b) It is, however, sometimes spoken of as a sen-

sory symptom, because a "sensation" (a) attends it. It is one of those disorders of co-ordination which has a subjective side. But the "sensation" in this case is a state of mind (see Chap. I., Part 2, page 349), and states of mind may arise during energising of motor as well as of sensory nerves and centres. Our direct concern is with the physical process which goes on in the nervous system whilst the "mental state" which is a feeling of vertigo continues; it is the physical process which is a disorder of motion—actual or nascent. There is as much difference betwixt the sensation or feeling the giddy man has and the physiological process which goes on in his nervous system as there is betwixt pain and the changes in the sensory (afferent) nerve which exist whilst the pain lasts, or as there is betwixt the colour red (b) and the change in the optic nervous system associated with it.

Hitzig's researches on galvanising the cerebral hemisphere in man (the electrodes being applied to the outside of the head) show clearly, I think, that vertigo is on its physiological side a motor symptom. An account of these experiments is to be found in the third edition of Althaus's "Medical Electricity," page 141, from which I borrow the facts below given. Hitzig distinguishes three degrees of vertigo: a slight current produces no outward effects, but there is a feeling of uncertainty as regards the position of one's body, or of external things; in the second there is no outward effect, but there is a feeling of movement; in the third degree the patient actually does turn. These experiments, taken with clinical facts, show that epileptic vertigo is on its anatomical and physiological (or objective) side a unilateral disorder of motion; or, otherwise expressed, that it is a particular defect in the adjustment of the organism as a whole to its environment. In the first and even second degrees of "galvanic giddiness" there is only faint excitation of those centres which, when strongly excited (third degree), cause actual movement. (c) So in calling "galvanic" or epileptic vertigo a unilateral disorder of motion one means that it is

supposed. It is owing (1) to erroneous estimation of the position of external objects, or, speaking technically, to "erroneous projection," and (2) to over-action of associated muscles. In this principle we have the full explanation of the Cerebellar Reel, the Ataxic Stagger, and some other "disorders of co-ordination," dependent, as I believe, on palsies or paresis of motor nerves and centres.

It may seem that I am trying to prove in the text that partial loss of consciousness is a state of mind—i.e., that partial loss of consciousness is a state of consciousness. There is really in what we call defect of consciousness, a double state; the "mental state" may be partly due to over-action of subordinate centres, from loss of control, by defect in their highest nervous centres. I shall consider this principle, already several times referred to, later on. There is a duality in the anatomical substrata of consciousness; diminished "object consciousness" is constantly attended by increased "subject consciousness."

(a) "These [mental phenomena], according to the classification we have uniformly followed, consist of Thoughts, Emotions, Volitions, and Sensations, the last being as truly states of Mind as the three former. It is usual, indeed, to speak of sensations as states of body, not of mind. But this is the common confusion of giving one and the same name to a phenomenon and to the proximate cause or conditions of the phenomenon. The immediate antecedent of a sensation is a state of body, but the sensation itself is a state of mind." (Mill's "Logic," 8th ed., vol. ii., p. 436.)

(b) "Let it be shown, for instance, that the most complex series of physical causes and effects succeed one another in the eye and in the brain to produce a sensation of colour; rays falling on the eye, refracted, converging, crossing one another, making an inverted image on the retina, and after this a motion—let it be a vibration, or a rush of nervous fluid, or whatever else you are pleased to suppose, along the optic nerve—a propagation of this motion to the brain itself, and as many more different motions as you choose; still, at the end of these motions, there is something which is not motion, there is a feeling or sensation of colour. Whatever number of motions we may be able to interpolate, and whether they be real or imaginary, we shall still find, at the end of the series, a motion antecedent, and a colour consequent." (Mill's "Logic.")

(c) Excitation of motor centres suffices to give us ideas of movements, even when the motor organs have been removed. (See foot-note (a), Chap. I., Pt. 2, Oct. 21, 1874, p. 349, and Weir Mitchell on Faradising Stumps, *op. cit.*)

(a) As will be pointed out later on, authorities declare that, to use the words of Niemeyer, "there are many intermediate stages between epileptic vertigo, the *petit mal*, and complete epilepsy." But the assertion in the text is that they are different degrees depending on discharges of different strengths beginning in the same part.

(b) The giddiness is not due to double vision, as is often

essentially so; there is nascent or incipient movement in the slighter discharges, and actual movement in stronger discharges.

Vertigo, a motor symptom, has a subjective side in the feeling, or "sensation" of confusion. This is really a *defect of consciousness*. Loss of consciousness in the stronger discharge occurring in cases of *petit mal* is on its physiological side a loss of adjustment to the environment.

I nevertheless, in spite of these fundamental resemblances, consider that some such arrangement as that into the three Clinical Entities is necessary for practical purposes. Our patients consult us for symptoms. A man comes to us for vertigo, and we have to find out whether it is epileptic vertigo or not. For this purpose the empirical classification or arrangement is the best. For example, a patient having an attack of vertigo, it is important first to consider it as vertigo simply, in order to ascertain whether in its superficial features and circumstances it corresponds to epileptic, to aural, or to so-called stomachic vertigo. We thus identify it, and can afterwards trace its fundamental associations. Again, if a patient temporarily loses consciousness, we have a similar investigation to find out whether it be *petit mal* or ordinary fainting. Thirdly, if there be convulsion, we try to determine whether there be apoplexy, uræmia, tumour, &c. It may be well to illustrate this point at more length. Let us take a really difficult case. We will not suppose that a man comes telling us he is subject to *convulsive seizures*, but that a patient is brought by the police to our hospital for a fit which happened in the street. We should take note of the prominent facts, of the convulsion, with loss of consciousness, followed by coma, and with bitten tongue. We should in our minds make a rapid clinical arrangement of the conditions under which such convulsions occur. If the convulsion had been universal, and if there were no paralysis after it, we could not tell (I mean from the condition of the patient) whether there was uræmia, cerebral hæmorrhage, or tumour. For the epileptic fit (I now mean the *grand mal* of authorities) may not differ from the convulsion in some cases of uræmia, in some cases of cerebral hæmorrhage, and in some cases of intra-cranial tumour. If from the patient's age, and from an examination of his eyes, arteries, urine, &c., we could eliminate uræmia, cerebral hæmorrhage, and tumour, we should in all probability be right in saying there was epilepsy *grand mal*. (a)

(To be continued.)

## THE CURE OF BENT KNEE AND THE IMMEDIATE TREATMENT OF CONTRACTED JOINTS.

By J. MORGAN, M.D., F.R.C.S.I.,

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In continuation of my observations, I may here introduce the method adopted as a bone-setter's method, taken from Mr. Hood's book.

The operator, as will be perceived, grasps the heel of the patient between his knees, the inner condyles resting on its sides just below the ankle-joints. By this means the foot serves as a lever to rotate the leg; the hands grasp the knee and the thumb is situated upon the painful point, which, in bone-setter parlance, is where the "bone is out." The operator then rotates the leg by a lateral movement of his thighs, and then directly flexes it by the movement of the hands and thighs together; this movement can only carry flexion to a certain point: as soon as this limit is reached he relinquishes his original grasp, and places his right forearm near the wrist under the knee as a fulcrum, grasps the leg near the ankle with the left hand, and flexes to the full extent. From this description it will be seen that the method originally

(a) The diagnosis is really more difficult, but the above will suffice for illustration. Of course, if we had a history of fits, occurring now and then for months or years, or if we waited until the patients recovered consciousness completely, we should practically have the diagnosis made for us. If the fits were one-sided the difficulty would be a little less.

suggested by Hey for his internal derangement of the knee-joint (often so obscure an accident) is simulated; and, therefore, in such obscure cases success would follow this action and the application of the thumb to the painful point; while in cases where adhesions had existed, the active flexion and "twist" of the joint would at haphazard break through those that had impeded its motion, and thus liberate a limb which had long given inconvenience and concern.

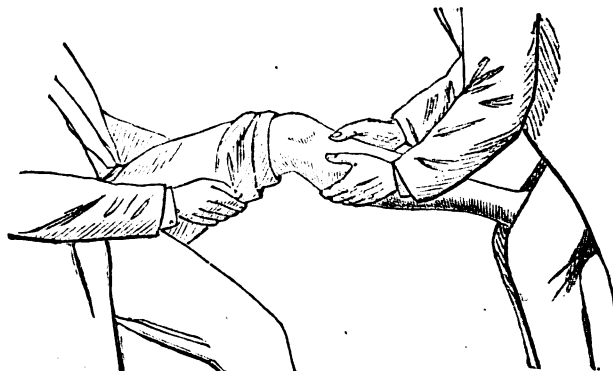


Fig. 6.—Mode of manipulation and thumb-pressure combined.

The knee being now straight—in the case I have detailed—I laid it in a well-prepared splint, having padded the joint round with wadding, I gave an opiate that afternoon, and let the child gradually recover, as already detailed, with perfect results.

In this instance I did not use passive movements to obtain a very movable joint, as, from the long standing of the disease, I did not anticipate much immediate results as to motion. I put on a lateral support, leaving the motion to be regulated more at the child's will, and by degrees. Every day showed an improvement. But were the adhesions more recent, I would, after a few days, have used gentle passive motion, by swinging the limb, or otherwise. As inflammation might be more apprehended in such recent cases, it may be well to keep pounded ice or evaporating lotions round the joint, and use every reasonable precaution against inflammatory action being set up. The small amount of pain that was experienced after the extension of a joint so long tied together was in the case detailed and in other similar instances remarkably little, so much so indeed that we might almost believe in the assertions that persons who submitted themselves to the operation as cripples walked to their homes.

The amount of extension to be used, it will be observed, was such as sufficed to straighten the limb. I felt, as I have stated, the adhesions give way freely—first, on increased flexion, and then on extension being made carefully, and with more or less a series of quasi jerking motion than of a violent snap. If the joint is to be straightened at all, it had best be done thoroughly, and have the adhesion fully disrupted; half doing so, or fiddling with it, tends but to irritate and set up renewed inflammatory action. It is best to have these adhesions torn, not stretched, which would only enable them by-and-by to re-establish the inconvenience it is sought to annihilate. This, indeed, seems to be in a great measure the advantage of the "bone-setter," who, being professionally irresponsible, and ignorant of the dangers of joint disease, does not hesitate to rupture fully any obstructions to motion. Mr. Hood remarks on this subject:—"The chief thing necessary is to have confidence, and to exert sharply and instantaneously the full leverage given by the limb. If the operator attempts to move slowly, he will probably in many cases stop short of doing good, i.e., of rupturing the adhesions. A timid operator may easily do mischief by traction upon joints, which after all he fails to relieve, when a bolder and more rapid movement would at once have set the patient free. I am dis-

posed to think that much of the fear of articular inflammation entertained by surgeons is based, if upon clinical facts at all, almost entirely upon the results of motion of an inefficient kind sufficient to increase the hurtful traction of an adhesion, but insufficient for its destruction." The remark made on these occasions when an adhesion is broken through, "Did you hear that?" fully explains the practice. The result is a matter for observation.

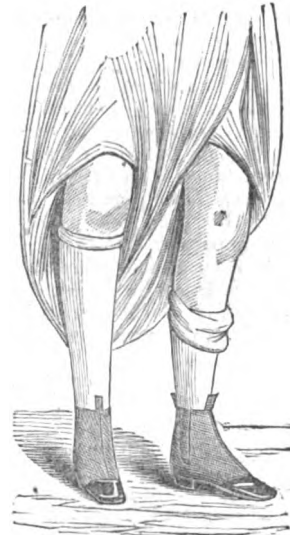
Another very successful case will form a good illustration of the advantages of this method of treatment:—**E—B—**, a girl now aged sixteen, when but a child of five years, first suffered from symptoms of "white swelling" of the knee; it eventually suppurated, and after a long contest with the disease, during which amputation was suggested on more than one occasion, the limb recovered in a state of ankylosis, as shown in the illustration, representing the patient on August 7, 1874. It will be seen that even the preposterously increased cork sole was inefficient. There was now eleven and a half inches space between the toes and the ground when the girl stood up, and even with her crutch and the immense sole to the boot she could not walk.



Fig. 7.—Case of E. B., showing the position of the limb on August 7, 1874, as it had existed for eleven years.

For eleven years this girl had suffered from this bent knee. Her form was becoming disfigured, and her health impaired. On examination I found that a certain amount of flexion remained, but that extension was impossible. I put her under the influence of ether and tenotomised the inner hamstring, and immediately closed the slight wound made. I could find that one great obstacle was at once overcome; then by the aid of an assistant and my own effort, while grasping around the joint firmly, as I have represented already, I extended the limb, and felt very firm adhesions break down within the joint. I thus could bring the limb all but straight. I then laid it in a comfortably-prepared splint, and bandaged from the foot upwards. In eight days, not being quite satisfied with the appearance, I again etherised her, and by force straightened and broke down some adhesions which still remained, and again replaced the limb. The adjustment was not disturbed for six days, and in three weeks she was walking about, resting on the sole of the foot. She has been going about the house up and down stairs, and now (in October), can walk as well almost as ever, though she prefers wearing slight supports to the joint, consisting simply of two lateral iron rods fitting into sockets at the sole of the boot, with a leather support over the point of the knee. The joint has recovered a wonderful amount of motion, and the support

is not really required, but she prefers it, as giving confidence while walking. The illustration, drawn in October by Mr. Oldham, shows the present appearance, the shaded point indicating where the abscesses originally pointed.



Case of E. B., as she stood in two months after cure by extension. Drawn October 5, 1874.

Here again the most satisfactory results were obtained. A member which had been useless for eleven years was made in a few weeks nearly as perfect as ever—without bloodshed, long confinement, or the use even of complicated apparatus, the crutch and preposterously soled boot being kept now as cherished curiosities only.

In June 1873, a country girl, aged seventeen, was sent up to Mercer's Hospital for treatment, suffering from a bent knee for six years, the result of similar disease. No abscesses had formed in her case, but the the joint was firmly fixed at nearly a right angle, and she could not put the foot to the ground, a crutch being essential to her. As her existence depended on her exertions, she was most anxious that something should be done to regain the use of her limb. I found the inner hamstring very resisting. On June 12, 1873, she was put under the influence of ether, the hamstring tenotomised, and extension was made as in other cases I have detailed. The adhesions were felt and heard giving way "crack, crack," and the limb was straightened at once, then laid on a splint, and in three weeks the girl was walking fearlessly along. She left hospital on July 9, 1873, and shortly afterwards wrote up, expressing her gratification, and saying that she was able to go about without inconvenience, beyond slight stiffness, and without a stick or crutch.

On October 21st, 1874, I extended the joint of a girl, aged nearly sixteen, who had not put her foot to the ground for eight years, but constantly used a crutch. She had first suffered when between six and seven years of age from white swelling of the knee-joint. Very firm adhesions had formed, as indicated by the feel, and by the fact that while extension was almost lost, flexion was also extremely limited, and the tension of the hamstrings had little or no influence on the deformity: as the girl had grown rapidly during the long period of inutility of the limb, the leg had wasted, and its nutrition suffered so far that it was smaller and shorter, from the head of the tibia to the sole, than the opposite leg, by nearly two inches, while the angle formed was, as shown by the tracing, very considerable. The patella was evidently bound to the condyles of the femur, while, however, a certain amount of "spring" existed between the femur and tibia. The latter had also yielded backwards from the femur. I believed that if bony ankylosis had formed it was between the patella and femur alone. I could not expect in this case,

as the leg was smaller and shorter than its fellow, so good a result as in the preceding cases.

On October 21st, 1874, I put the patient under ether, and getting one assistant to extend the leg, and another the thigh, I myself grasped around the knee-joint. I found, as extension proceeded, that the semitendinosus became

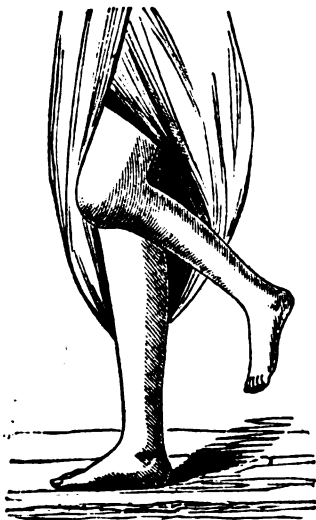


Fig. 9.—Appearance of the knee joint on October 21, previous to operation.

an opponent. I divided it with the tenotome, and closed over the wound with plaster, and I then made powerful traction from behind forwards against the head of the tibia, which from its having already gone backwards from the femoral condyles, I carefully guarded from further dislocation. I rested the patella against my chest; after a moment or two the adhesions were felt giving way freely, and the limb was straightened as far as the altered position of the tibia allowed. A gutta-percha splint was laid on the back, and bandaging put on from below upwards. Cold lotions were applied to the joint in the succeeding twenty-four hours, fearing any inflammatory action after the disruption of such long-existing extensive adhesions. No inconvenience followed.

In this instance I do not anticipate that mobility to any great extent can return to the joint, and the straight position only can be maintained, and will leave about one and a half inches of shortening, which can be replaced by a

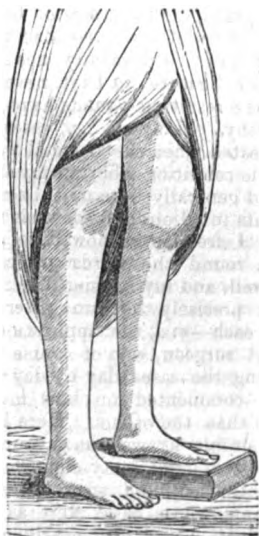


Fig. 10.—Appearance of the limb on October 0, 1874, with the knee joint rectified.

thickened sole. I saw this girl stand with her foot laid flat down in six days after my operation of extension, as shown in the drawing taken by Mr. Oldham.

But in younger patients, as Mr. Barwell remarks, "the epiphysis of the tibia, which has not united, may be broken through and the leg brought into the same line as the thigh, the upper end of the diaphyses will then rest against the edge of the epiphyseal end, and the limb will be only shortened by little more than an inch." In Fig. 5 will be seen the mode of drawing on the dislocated epiphysis should occasion arise. In all cases the ultimate object to be gained should be predetermined by the operator. Should it be found that fibrous bands alone, which yield with tolerable ease, constituted the obstruction, then, after their disruption, motion, to a greater or less extent, should be sought to be obtained, and often in the smaller joints will be restored to an incredible amount. On the other hand, if the union be found to be dense and resisting, and to have resulted from a long-continued form of disease, the patient and surgeon may be fairly satisfied with a more limited area of motion, or even with a stiff joint brought, however, into so favourable a position that it will convert a useless and inconvenient appendage into a limb capable of supporting the weight of the body and of being used satisfactorily in progression. In cases where extensive disruption has been established, it may be judicious to put the limb in a gutta-percha or other splint which had been previously moulded to the distorted joint, and to apply cold lotions or pounded ice should any inflammatory action ensue, and after a few days to lay the limb in the more extended posture, using passive motion from day to day. I think patients will, however, regulate the amount of motion for themselves, if a lateral support, with a band across the joint, be supplied them for a short time. No definite rule can, however, apply to each case; discretion and experience must guide the way.

#### ON THE TREATMENT OF FISTULOUS SINUSES BY MEANS OF THE ELASTIC LIGATURE. (a)

By W. ALLINGHAM, F.R.C.S.,  
Surgeon to St. Mark's Hospital, &c., &c.

IN February of 1873, Prof. Dittel, of Vienna, made a communication to the Imperial Medical Society of that city on the advantages of the india-rubber ligature over other means in the treatment by operation of several surgical affections. At that time Prof. Dittel thought he was the originator of the method he described and advocated, but subsequently he discovered, or was informed, that Dr. Grandesso Silvestri, of Vicenza, had proposed a similar procedure, and even carried out some operations in the year 1862, or more than ten years prior to Prof. Dittel.

It also appears that a much honoured Fellow of this Society, Mr. Henry Lee, had read a paper in the year 1870, at the Medico-Chirurgical Society, on the use of an elastic ligature in the removal of nævi, and further, that at the same meeting, Mr. Holthouse claimed priority for himself, having, he said, employed the elastic ligature in cases of fistula in ano, and for the division of bridges of skin between fistulous orifices. Admitting, therefore, as Prof. Dittel immediately and most readily did, when the facts were brought to his cognisance, that he was not the originator, still, whatever credit may be due to the method must really be ascribed to Prof. Dittel, as the man who, by a series of experimental operations, showed what really could be accomplished by the ligature; in fact, he has done what had evidently never even been dreamed of by those gentlemen who employed it before him.

After reading myself Prof. Dittel's paper, I came to the conclusion that, assuming his statement of facts to be worthy of credence—and there was every reason to believe

(a) Read before the Medical Society of London, November 2nd, 1874.



them to be so—we might find in the india-rubber ligature a valuable addition to our usual modes of operating, and very importantly so in that branch of surgery to which I had paid especial attention. I was perfectly willing to make every allowance for the enthusiasm of the originator of any novel proceeding, and did not expect wonderful results from the ligature; most certainly I did not imagine for a moment that it would ever supersede the knife in the vast majority of cases, although I thought it might replace it with advantage under some special conditions. I was also perfectly aware that the objection that the method was unscientific might be advanced against it, and also that it essentially lacked the brilliancy pertaining to operations by the knife; but looking rather on the practice of surgery as an art than as a science, and considering that the first and great object of a surgeon's life should be to cure, and further that he should try to cure as quickly, pleasantly, and as safely as possible, I determined to fairly test the elastic ligature in what I thought suitable cases, feeling my way to more important attempts should I find encouragement to do so. Most of you, I dare say, well know how accidentally Prof. Dittel discovered in what a facile way a thin india-rubber cord could cut into dense tissues, even solid bone, and that in the elastic nature of the ligature resides its peculiar power.

Ligatures of thread for a great many years, even, we may say, from the time of Ambrose Paré, have been employed for cutting through certain structures, mainly arteries; but hæmorrhoids, nævi, warty and pedunculated growths have constantly been removed by the application of a ligature, and the reason it has not been more extensively available has arisen from the fact that only a comparatively limited thickness of tissue can be cut through by one application of the ligature, which, as suppuration takes place, becomes loose, and then does not penetrate further unless it be retightened; it is only therefore small and soft growths that can be safely and advantageously treated by the thread ligature.

Various means have been devised to overcome this inherent defect, and make the thread ligature cut, by constantly or frequently tightening the thread—such means are shown in Ricord's instrument for the treatment of varicocele; Mr. Luke's double screw, which he invented for cutting through rectal fistulæ which ran so high up the bowel as to be considered dangerous of division with the knife. A variety of methods, of which a spiral spring is the essential, have also been employed, from the using of a wooden spiral-spring letter-clip up to the very ingenious sarcoctome of Dr. Ainslie Hollis.

To all these methods, comparatively good as they may be, some very strong objections may be raised. From considerable experience, I know that Mr. Luke's double screw, valuable as it has proved, causes very intense pain; the daily or frequent necessity for tightening the ligature inflicts upon the patient a torture often unendurable, and on many occasions the knife has had to complete what the ligature began, the patient being unable to endure the long-continued suffering. Another very grave objection to the intermittent application of pressure is the frequency with which secondary abscesses result. I have had this not uncommonly occur in my own practice, and seen it also in that of other surgeons.

Dr. Hollis's ingenious sarcoctome is very superior to the others in its action, but even this requires tightening or re-setting from time to time; it acts also only in one direction, and therein lacks the even circular pressure exerted by the india-rubber. Another important objection is its size and weight, which render it, under many conditions, inapplicable; and lastly, its expense is very considerable, and you would require quite a stock of them if you wanted to use the instrument frequently.

It must be evident, on reflection, that the pressure of the india-rubber band or loop is not always the same during all the progress of the cutting; in fact, it diminishes gradually as the loop of the ligature becomes less in circumference: but practically, the pressure up to the moment

of separation, if properly adjusted at first, is sufficient for its work.

The utmost pressure exerted by a solid india-rubber ligature of the thickness of 1-10th of an inch, stretched to the utmost, only equals  $2\frac{1}{2}$  lbs. weight; for example, 6 inches of india-rubber, when stretched to its utmost, i.e., 3 feet, exercises a power of  $2\frac{1}{2}$  lbs.; when stretched to 2 feet, only a little more than  $1\frac{1}{2}$  lbs.; and when stretched only 1 foot, or double its length,  $\frac{1}{2}$  lb.; and even this power is quite sufficient, as shown by experiment, to pass through any ordinary tissue, in consequence of its unremitting and even pressure in every direction. In my experience, now, I do not think it necessary, or even desirable, in ordinary tissues, to fix the ligature so tightly around the part to be severed as I formerly did. I believe a slighter equable pressure will effect safely and more painlessly all we require. In fact, the elastic ligature does not so much cut as gradually compress and render dense the part contained within the loop, and this is how its action differs from inelastic ligatures—ulceration taking place on both sides of the loop, so that when the ligature comes away, actually a portion of the tissue is found contained in it; so hard, dense, and semi-transparent is this as to resemble horn. (Specimens illustrating this were shown to the Fellows.)

In my earlier operations I used a small drainage-tube, tied in a reef-knot, as recommended by Prof. Dittel; this does not answer so well as the solid india-rubber used by Sir Henry Thompson, and I never now tie a knot, as the knotting very easily breaks the india-rubber; but I adopt a plan I will presently describe. In my early cases, when employing the drainage-tubing, I twice had to tighten the ligature, as I thought it was not exercising sufficient pressure; but I now know this need scarcely ever be done if the ligature be properly adjusted at first.

I am myself thoroughly convinced that there are decided advantages in the india-rubber ligature over the knife in many surgical cases: it is my intention to-night to confine my remarks specially to the subject of its use in sinuses; but I may mention that I have an experience of the ligature in sixty operations, the characters of which I will only mention—viz., twenty-eight cases of fistula in ano at St. Mark's Hospital, and twelve in private practice; five cases of hæmorrhoids; two cases of sinuses in the groin, one in the neck; two removals of scirrhus breasts; two cases of pedunculated tumours (one case of my own, the other Mr. Shillitoe's, who applied the ligature at my recommendation, and with my assistance, and with excellent result); two cases of varicocele; two of varicose veins; one division of the sphincter ani muscles, in case of great tendency to hæmorrhage; two cases of linear rectotomy; one nævus. In none of my cases has there been any serious "contre-temps." I have only once seen a secondary abscess follow the ligature. I have never had a case of erysipelas, and the resulting wounds have been uniformly remarkably healthy. Many of my cases at St. Mark's Hospital were treated when the hospital was by no means in a good hygienic condition; but all my ligature wounds went on well, and generally were much healthier than the wounds in patients in adjoining beds that had been made with the knife. I frequently showed to gentlemen who accompanied me round the wards my cases of ligature doing perfectly well, and my incision cases very much the reverse, although precisely the same after-treatment had been adopted in each—viz., the application of carbolic oil. Our resident surgeon, who of course had the opportunity of watching the cases day by day throughout the treatment, often commented on how much better the ligature cases did than the others. Here I must mention that I did unfavourable as well as favourable cases with the ligature (three of my twenty-eight hospital patients were decidedly phthisical), and when occasion presented, I chose two patients whose cases were as much alike as possible, the patients being also nearly of an age, both healthy-looking, and as far as one could judge, both likely to do equally well. The result of this experiment was uniformly in favour of the ligature.

In nineteen ligature cases the average time in the hospital was twenty and a quarter days, while in nineteen selected incision cases (selected to exclude very bad ones), the average time was thirty-five days.

Broadly one may state these probable advantages of the ligature over the knife in dealing with sinuses of an ordinary character :—

1. The operation is commonly painless, and the subsequent suffering, if any, is usually very slight.
2. It is bloodless.
3. There is greater rapidity of cure.
4. The patient need not keep his bed, nor even his room, but may go into the air, driving or walking in moderation.
5. Its peculiar applicability to delicate patients, and those who have a phthisical tendency.
6. There is usually no anæsthetic required.
7. There is a minimum amount of suppuration.
8. And one may add that the ligature is often very advantageous as a supplement to the knife.

I shall make a few observations on each of these points, and relate some illustrative cases.

The operation, if it may be called so, is really painless, i.e., no more pain is inflicted than that which is caused by the passage of a probe through a sinus, and this, performed skilfully and gently, ought to give no pain, unless the sinus be inflamed. Should the fistula be an incomplete one, a slight amount of pain may be experienced in rendering it complete. The tightening of the ligature patients never flinch at or complain of.

The pain after the operation is usually very slight. Many of my patients said there was really no suffering, and they slept soundly the first night. Others were disturbed at times during the night after the operation, but afterwards were free of pain; others, delicate, excitable people, complained for some two or three days: but persons behave so differently under pain that it is very difficult to speak positively on this point. The best proof that the pain is but slight may be deduced from the fact that several of my patients have gone about their business, and not laid up more than a day; for example, a gentleman in a bank had three sinuses in his left groin, the result of suppurating buboes of long standing; one sinus passed round the thigh towards the perinæum; the length of it was  $3\frac{1}{2}$  inches. I put an elastic ligature through it one Saturday afternoon; he had pain in the night, and more or less on Sunday; but on Monday he went to his business, and continued daily to do so. The ligature cut its way out in six days, and the wound looked splendidly healthy. Emboldened by this success, on the following Saturday I put two more ligatures through the other sinuses, and again on Monday he went to his office—in fact, he only kept his house on the two Saturdays and Sundays, and in thirty-seven days he was perfectly well. A case of fistula in ano was treated by me in the same way under more unfavourable circumstances. A warehouseman, æt. 27, a delicate-looking man, had the ligature introduced on one Saturday. He went to work on Monday, and was occupied almost all day in standing and walking about, but without any further rest, except the Sundays; he was thoroughly cured in eighteen days.

My opinion is, founded on a fair number of cases, that absolute rest in bed, or confinement to the room or house, is by no means a necessity. Of course, I do not advocate much walking about or hard work, and, on theoretical as well as practical grounds, I should advise any patient who can spare the time, or whose case is severe, to take all the rest and quiet he could, in the hope of hastening the cure, and preventing any accidental interference with the healing process, and also mitigating possible pain.

The operation is almost, and on some occasions quite, a bloodless one. This, of course, is of no moment whatever in simple cases, where the amount of blood lost in the use of the knife is next to none; but when fistulous sinuses run very far up the bowel, and the parts are at

the same time, as they frequently are, both vascular and indurated, it is an advantage not to be lightly valued. I have with the elastic ligature laid open the rectum for six inches upwards in a case of stricture and ulceration, where, from the induration and vascularity of the parts, very profuse bleeding would have inevitably followed the knife, and not a teaspoonful of blood was lost. Again, in cases of hæmorrhagic tendency this method is highly useful, and it helped me out of a case which I think is quite worth shortly narrating to you.

An American gentleman was sent to me early this year by Dr. David Young, of Florence. He had long suffered from an ulcer of the rectum within the sphincter, and he had been under the care of many surgeons, American and Continental, without obtaining any permanent benefit. The usual symptoms were present in this patient, but an important feature was that for years he had frequently lost large quantities of blood from the bowel, which the ulcer did not seem quite to account for, although vascular. I made sure that the bleeding came from the rectum, and not from high up the bowel, and also that he had no hæmorrhoids; but upon this point I need not dilate. When he consulted me I found, in addition to the ulcer, a small fibrous polypoid growth close to the upper edge of the ulcer, and, as I thought this might be a source of irritation, and keep up the sore, I removed it, placing a ligature upon it; but the small pedicle cut through on drawing the ligature tight. On this accident occurring I carefully examined the part with a speculum, fearing hæmorrhage; but, as none took place, I contented myself with placing a little styptic wool in the bowel. No doubt, as soon as the slight shock caused by his trepidation passed away, and his circulation rallied, the bleeding commenced slowly, for the vessel must have been very minute. The history of the hæmorrhage was as follows: He dined, and went to bed early, and fell asleep. After two hours he awoke, feeling very faint and sick. He took some brandy and water, felt better, and again dozed off. After a time he awoke again, was faint, and felt desirous of going to the stool. This he did, and, to his great alarm, nearly filled the chamber utensil with bright red blood. He then fainted off, and was got back into bed. In my absence a neighbouring practitioner (Dr. Spurgin) was sent for, and he arrested the bleeding by means of ice. It recurred, however, the next day, and I finally stopped it with the persulphate of iron. The blood was easily retained in great quantity in this case, because the patient had a very hypertrophied and tightly contracted sphincter ani, and also a much dilated rectum, the result of the habitual use of copious enemata.

On questioning my patient, he informed me that he always bled very much on the least cut or prick, and had great difficulty in restraining the hæmorrhage. In appearance this gentleman was remarkably fair, freckled, and thin-skinned. After the removal of the polypus the ulcer still defied all treatment, and I became certain that it was absolutely necessary to do what I had at first advised—but the advice had not been accepted—viz., to divide the sphincter; but then came the question of bleeding, and I confess I was somewhat doubtful as to the result, when, in a moment, the elastic ligature presented itself to my mind as a solution of the difficulty.

Aided by my colleague, Mr. Alfred Cooper, Mr. Clover giving nitrous oxide and æther, I passed a double elastic india-rubber ligature under both sphincters, and tightly secured one ligature and left the other loose. I passed a double ligature, and left one loose, in order that the small wound made by my instrument might be thoroughly plugged up by the india-rubber. The operation was perfectly successful; really not a drop of blood was lost: the ligature cut through in nine days, and in thirty days he was cured, and returned to America perfectly well. He did not keep his bed, except the day of the operation, and did not at all complain of the pain, nor did he require any opiate.

(To be continued.)

## CASES IN PRACTICE.

Reported by JOHN W. MARTIN, M.D.,

Assistant-Surgeon Mayfield Factory Dispensary, Portlaw, &amp;c., &amp;c.

*Albuminuria—Dropsy—Weak Heart, with Enlarged Area of Cardiac Dulness—Hepatic Enlargement.*

THE following case is interesting, from the gravity of the symptoms presented and the success attending its treatment. I regret to say my notes were not as full as I would now wish, but they are sufficient to indicate clearly the appearances presented and the treatment adopted. It is one of those cases that should encourage medical men to persevere, even when all the circumstances of the case seem to point to a fatal result.

Wm. Dillon, æt. 40, car-driver, subject to every variation of weather, and accustomed to drink hard, presented himself for treatment on the 7th of August, 1873. The attack had commenced five weeks before, with pain in the region of the heart, accompanied by sense of great oppression. He was unable to account for it on any special grounds, either wetting or chill. He got a cough mixture in Waterford at an apothecary's establishment, and took some home-brewed remedies in the shape of infusion of wormwood, but received no regular advice or treatment. A fortnight before I saw him the pain in the chest subsided, the subsidence being followed by pain in the abdomen, which in turn was replaced by ascites and œdema of the lower extremities. On the day of my seeing him he walked from the car into the dispensary with great difficulty, the abdomen was greatly distended, whilst his legs were three times the size of what they were in health. The slightest exertion gave rise to severe dyspnoea; even in repose the respiration was very short, shallow, and gasping. There was a constant tendency to syncope. The lips were blue, and the facial capillaries and cervical veins congested; the whole appearances about his face were those observable during an attack of cyanosis.

The area of cardiac dulness was greatly enlarged. Heart's rhythm irregular, sounds weak, impulse scarcely to be felt; pulse 120, weak, and thready; the tongue foul; bowels confined; appetite gone. The hepatic dulness was much enlarged, the lower edge of the liver being well below the false ribs. He did not complain of any tenderness to pressure during the examination. He complained of pain and weakness in the loins over the region of the kidneys. Passes urine freely—about a pint in the day. On examination I found it highly albuminous—two-thirds the bulk, rough measurement. The recumbent position tried him greatly, increasing the dyspnoea and rendering sleep in that position impossible.

Previous to this attack the man's history was one of sound health.

The treatment consisted of hydragogue purgatives, diuretics, and tonics, as follows:—

R. Pulv. jalapæ co., ʒi. talis viij.

One to be taken at bed-time.

R. Pulv. scillæ } aa gr. i. in pill.  
Pulv. digitalis }

One to be taken three times a day.

R. Potass. iodid., ʒi.;  
Ferri citratis, ʒi.;  
Sp. chloroformi, ʒij.;  
Sp. am. aromat., ʒij.;  
Aqua ad ʒxij. M.

Two tablespoonfuls to be taken three times a day.

August 12th.—Increased secretion of urine, in which the albumen was diminished to one-half the bulk. Œdema of extremities and the ascites reduced. Treatment continued. R. Linimentum terebinthinæ, ʒvj., to be applied over the kidneys twice or thrice daily. Ordered a flannel binder to be worn round the loins.

August 20th.—Ascites and œdema of the extremities almost gone. A further reduction in the amount of albumen observed. Can lie down in bed, and sleeps well.

Appetite improved. Area of cardiac dulness diminished. Heart's action improved.

August 29th.—The jalap powders not sufficiently active. Ordered ʒij. to be taken instead of ʒi. as before.

Sept. 20th.—Has steadily improved. In consultation with my father he recommended a change from the iodide of potash mixture to one of persulfate of iron and nitrate of potash. Also gave him cod-liver oil. Continued the pills and powders.

Oct. 15th.—Suffered from occasional headaches. Bowels regular; appetite good; tongue clean. No swelling in either extremities or abdomen; free from dyspnoea; albumen only. One-twelfth the bulk of urine examined.

Oct. 29th.—Feels strong and well, and able for his work. The albumen had increased to one-sixth the bulk, but seemed to give him no inconvenience. Pain in the back and weakness quite gone. Ordered a mixture of iodide of potash, bark, cod-liver oil to be continued, attention to the bowels, and a good nourishing diet.

The patient did not again come under my care. During the past summer I have seen him plying his occupation as carman, and he looked strong and well, and stated that his health was then very good.

I present the case with no extended comments, merely as a contribution to clinical observation and treatment, and in this light I believe that the facts are worth recording.

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## The Medical Press and Circular.

"SALUS POPULI SUPREMA LEX."

WEDNESDAY, DECEMBER 2, 1874.

## TYPHOID FEVER AND ITS DISSEMINATION.

DURING the past week typhoid fever has held its ground amongst us, and given considerable cause for alarm; for while it can scarcely be said to be declining, except perhaps in virulence, even at Over Darwen, it has made its appearance in other parts of the country, and seriously increased the death-rate of the metropolis. It may be said of all fresh outbreaks of fever, as has been said again and again, that the degree of sickness corresponds in every instance very closely with the degree of defective sewerage arrangement and neglected water-supply. Where house drainage is in connection with common sewers, and the foul and deadly gases accumulate and find their way back to contaminate the air and the water-supply, there sickness has been greater, and enteric fever more commonly wide-spread and virulent. Doubtless in very many country places where the dangerous cesspool system still holds its sway, and the houses are without any efficient system of sewerage, and the drains

are allowed to pass so near the water-supply that by percolation the water becomes sensibly contaminated, there sickness and typhoid fever will always be found at its maximum.

If further argument were needed in support of our statement that the water-supply is often the chief carrier of the typhoid poison, we would refer our readers to the disclosures made during the investigation of the epidemic visitation at Lewes. There typhoid fever appeared suddenly in all parts of the town, and the only one thing common to all was the use of the water supplied by a water company. The sufferers from the epidemic were almost exclusively the water-drinkers. The origin of the disease was easily traced to water-pollution, and this had arisen in a way so conclusive that it deserves to be remembered. It was owing to the supply of water having had to be supplemented during the period of drought in the summer by water taken from the Ouse, and of course believed to be pure, but which turned out to be very impure, for this river receives the town sewage throughout its course, and up to an inlet to one of the company's reservoirs. This lamentable state of things, together with a want of other sanitary precautions, most effectually disseminated the particles of the specifically diseased evacuations of those first affected by the poison. An intermittent and scanty supply of water also left the mains for hours quite empty; consequently, when the water was turned off, the foul air of closet-pans of every house was sucked into the mains, and thus the water company became quite innocently the chief agent in spreading typhoid fever through Lewes. That the water supply was the great factor in spreading the poison in this instance has been demonstrated almost beyond a doubt, for when provision was made for taking water from a better source, and constant water supply secured to the inhabitants, the epidemic at once began to decline, and doubtless will, in a very short time, be effectually stamped out. Even a worse state of things still exist at Over Darwen, and the waste of human life in that town has been due to the criminal neglect of those who, refusing to take heed in time, sacrificed numberless valuable lives which, in money value and misery to survivors, it is impossible to estimate the cost of.

The well-authenticated histories of the march of typhoid fever, and in almost a precisely similar manner, are much too numerous to dwell upon. Who can forget the very conclusive way in which the outbreak at Marylebone in August of last year led Dr. Murchison to suspect and trace it to the milk sent up to town from a particular farm. In one instance, and in one house, where four servants had been left upon board wages, two of them purchased the milk in question, while the others used condensed milk; the former suffered from typhoid fever, and the latter escaped. Many other analogous examples not less remarkable and conclusive presented themselves. Here the milk had been unsuspectingly mixed in apparently the most trifling way with foul water, and the dilution could not be detected by any of the ordinary means; but, just as in the case of yeast and other ferments, a very minute quantity of organic matter in a state of decomposition may induce changes in a very large quantity of organic fluid to which it has been added.

That *sewer-gas* or foul air is also a potent agent in the production and dissemination of typhoid no one doubts who has had experience in the treatment of the disease; but that it can be communicated by personal contact in the way described by Dr. Budd is by no means so conclusively established: nor is it likely to be taken on faith because a philosopher has attempted to thrust "the morbid agent" down our throats *volens volens*. It is indeed not a little curious to find Professor Tyndall ready in this particular instance to abandon his pet "germ theory of disease" to espouse a spontaneous generation theory of typhoid. We sympathise with a "Potential Molecule," he is indeed "receiving very unfair treatment at his hands."

The most eminent members of the profession are at issue with Dr. Budd on an essential point; and it is the opinion of the majority that there is no danger in the continuance of ordinary social intercourse with any of those persons whose families have been among the sufferers from typhoid.

One word with regard to Professor Tyndall's statement that "the very organism which is at the root of all the mischief" has been discovered. We are right in saying nothing new has been discovered, nor any other changes observed to take place in "Peyer's glands" than those we are already acquainted with. The pustular and protuberant patches are known to put on a thickened appearance, and when cut through, a yellowish-white cheesy matter exudes. Fungoid bodies, similar in their appearance to those observed by Cohn in some other allied diseases, have been often noticed, and these resemble the *monas prodigiosa* of Ehrenberg. They are small, roundish pigmentary, chromogen, bodies, and, like the micro-bacteria, are doubtless due to putrefactive changes, far more likely to be *post-mortem*, than "the peculiar typhoid matter whose presence is typical of the disease, and whose formation and elimination constitute the essence of the intestinal process."

#### THE MODE OF FIXING IRISH SANITARY SALARIES.

WHEN the Irish Local Government Board first proposed to fix the salaries of sanitary officers upon the basis of their salaries, and to draw a maximum limit above which guardians should not go, we endeavoured to show that both propositions were unjust and unpractical. It is in the knowledge of every Poor-law medical officer that the salaries awarded by guardians in different districts bear little relation to the work done by the officer, but are, on the contrary, almost wholly regulated by the considerations whether the population of the district are poor cotters or rich gentry; whether the board of guardians is composed of gentlemen or of "squireens" and petty shopkeepers; whether the rates are moderate or excessive; and whether the doctor is popular or the reverse. There are districts in Ireland where dispensary medical officers receive £80 or £90 for doing six times as much work as is required in other localities where the salary may be £120 or more, and these are the very districts in which the distances to be travelled in pursuit of sanitary work are the greatest, and in which the function of coercing a poor and ignorant population is infinitely more irksome than that to be discharged as regards the more opulent inhabitants of other localities.

The health officers of such districts receive, under the

instructions of the Local Government Board, a small proportion of a small salary for great labour, while those of "better" districts are probably awarded a considerable relative part of a much larger salary for very much less work. Consequently, if political economy is to be depended on, the sanitary work in the poorer districts, where it is most wanted, will not be done. We are glad to observe that the *London Standard* concurs in this view, and moreover enters a strong protest against the principle involved in the fixing of a maximum limit to the salaries to be voted. The *Standard* says:—

"Apart altogether from the question of sufficiency, the fixing of a maximum is an unusual and arbitrary act. It will be borne in mind that the doctor has no option in the matter. He must do the new work imposed upon him, unless he is prepared to give up his appointment, and, of course, the great majority are not so prepared, nor indeed, know where to turn for a livelihood if all threw up their employment at the same time. After taking away the refusal of an option, to follow up by fixing a maximum is thus to push to an indefensible extreme the claim of the public to override the rights of the individual. The obviously fair course would be to fix a minimum, leaving to the medical man and the local authorities to settle between themselves how much higher the salary should be. For it is certain that the local authorities nine times out of ten refuse to give the maximum."

#### VICTORIA CROSS.

UPON two combatant officers this much-coveted distinction has been recently conferred for their gallant deeds during the late Ashantee expedition. We had thought before this that the chiefs of the medical department would not have been idle, and that they would have pushed forward with zeal the claims of the profession to one of these honours. Unless this decoration is to be only obtained through intrigue and interest, it should certainly be conferred upon an officer who as fairly and honourably earned it as anyone ever did. We allude to Dr. Gore. Major Sartorius and Captain Bell have obtained the V. C., the one for having carried under cover, during a heavy fire, a Houssa sergeant, at Oboyoo, the other for encouraging his Fantee labourers to work, while much exposed, at Ordhasu. Admitting, as all will, that such acts as these were worthy of every praise, we must say that officers whose trade is war, whose duty is to lead their men on every occasion and at all risk, have no greater claim to this distinction than the military surgeon, whose art is of peace, and who, when undergoing special risks, has been invariably rewarded, especially when wounded.

Such a one-sided bestowal of honours is inexplicable to us, who do not pretend to be versed in ways military. We always thought that devotion to duty, coolness, and bravery under fire were the roads to this distinction. These were certainly displayed by the medical officer whose claims we advocate upon the two occasions when he had the misfortune to come in contact with the enemy. No one devoted himself with more zeal to the interest of the medical department, and no one, we must say, has been more ungenerously treated. In making the foregoing remarks, we do not mean to finish without saying a word for others. The members of our profession who served in Africa did their duty in a manner which called

forth the universal approbation of all lay and military writers, who have borne testimony to the unvarying kindness, skill, and pluck of the medical officers. Yet out of some 96 who served on the Gold Coast little more than five per cent. have obtained any sort of official recognition, while promotions, the Bath and coloured orders, have been showered upon others. This is much to be regretted, as heartburnings always remain where men who march side by side and undergo the same hardships are not treated each with fairness and consideration. The public service is open to all, and its honours are not intended for the favoured few, but the many. We hope it is not too late to remedy the injustice we have indicated in the foregoing remarks. Up to the present it has been all fine speeches; we now look for the practical results.

### Notes on Current Topics.

#### Leeches for the French Army.

THE *Chemist and Druggist* says that the number of leeches required for the French army hospitals exceeds 100,000 per annum. The supply for the next three years is about being contracted for, at an average price of 125 to 135 francs the thousand.

A special commission is charged with the care of receiving the leeches from the contractors, and verifying the number and quality. They must be of the kind denominated *vertes* (green), or *grises* (grey), from either France or Hungary, or of the description called *dragon*, from Algeria.

After being counted, they are placed on a horse-hair sieve to drain; the largest ones are taken one by one, and made to disgorge, as they are not accepted when they contain more than fifteen per cent. of their weight in blood.

After this operation, the leeches are weighed; a thousand should reach 1,750 grammes, while their individual weight should be, for the smallest, one and a half grammes, and for the largest, not over two grammes.

Taking as a basis of cost 130 francs the thousand, the total of the three years' contract should reach nearly 40,000 francs.

#### Medical Athletes.

Two of the finest athletes in Washington are members of the medical profession. One of them lifts 1,000 pounds with his hands, and puts up a dumb-bell of 130 pounds. The other is said to be the strongest man in Washington for his size. He lifts 400 pounds with one hand, and pends 63 pounds at arm's length on his little finger.

#### Fraudulent Musk.

A CASE of some interest to pharmacists was tried at the Court of Exchequer, at Westminster.

Mr. Jeune, who is a broker, sought to recover from Mr. Monjoseph, who is a drug merchant, the price of a caddy of musk weighing 19½ oz., and valued at £32 13s.

The evidence went to show that plaintiff offered defendant a caddy of *fine Tonquin musk*; the latter did not at once purchase, but offered it to export druggists of Liver-

pool, who replied that they could do with it if of fine quality; the defendant wrote plaintiff to this effect, and with his permission sent the caddy to his customers on approval, with a request that the pods should not be cut open or disfigured unless they were purchasers.

One of the firm made an examination of the pods, pricking with a needle in the usual way, and looking for stitches; they had, as a whole, the appearance of being genuine, and it was ultimately decided to purchase, accepting them, according to declaration, as fine Tonquin musk. About ten or eleven days after the pods were all cut open, and of the 19½ oz. only 6½ oz. were found to be musk, the remainder being earthy matter, &c. The pods were returned to defendant, who in turn offered them back to plaintiff, but he refused to take them, and brought this action to recover amount. On his behalf it was argued that it was the custom in the musk market to examine by pricking only, and not by cutting, and that the purchaser always took upon himself the responsibility of the contents, it being understood that musk was largely adulterated.

For the defence it was argued that the article was specified and declared to be something which it afterwards proved not to be; fine musk had been purchased, but had not been supplied. Dr. Symes, in his evidence, said that he looked for stitches, but so ingeniously were they sewn that he failed to detect such till after cutting them open.

The Judge, in summing up, said that in all probability the fraud had been committed in China, and it would be for the jury to say which of them was to suffer the loss. The evidence had narrowed itself into two points, and from these they should arrive at their decision. There was such a thing as buying an article from appearance without any declaration being made as to its nature; in that case as soon as the seller had handed over the article his part of the contract was complete. The plaintiff had, however, admitted having offered the contents of this caddy as fine Tonquin musk, and in so doing had contracted to supply the article named. The second point was one on which the law was very exact—viz., if the purchaser of an article keeps it for an undue length of time before he notifies to the seller that the article is not what it was declared to be at the time of purchase, then the responsibility rests with the purchaser, and he has no power to recover for any loss he may sustain.

### The Earliest Record of Auscultation.

In the *Chicago Medical Journal*, Dr. Hyde, of Chicago, gives an account of the surgical works of Lanfranc, of Milan, written about the year 1300.

An old English translation of a portion of the seventh chapter, entitled "Of the Wounde of the Heade with breakinge of Cranion," is interesting as an indirect confirmation of the idea that there is nothing new under the sun, and that the practice of auscultation and percussion was recommended 500 years before the birth of Laennec.

"When the wounde is made in the heade, with breakinge of the sculle, consider whether it be broken unto the inwarde partes or no, that is to saye, to duram matrem, whiche thou maiste knowe by divers meanes waies, partely by perseverance and partely by infallible experimentes. The signes be these: the feelinge of greates paine, vomiting teares of the eies, crokedness of the syghte, inflammation

r rowlinge of the eies. And the experimentes are these: Oake a stronge threde, double twisted, and wexe it, and let the patiente holde it stronglye in his tethe, and begin thou at the mouthe of him, and with thy nailes stretche and streigne out the threde, til thou come at the other end of the same, holding it straight a cubite lengthe from the tethe, and make a sounde upon the threde with thy nayle, and doe so often times. If the patiente may susteine the sounde without feelynge of peine, then is not the sculle broken to the dura mater, for, if it be broken, he maye in no wise susteine nor suffer the harping of the nayles upon the threde. Or else thou mayst also take and smyte his head with a smalle dry wand of wylowe, or of ye pine tre, and holde thine eare to hys head. And if the sculle be whole, it wyle make an hole sound; but if it be cutte or broken, it will make a dumme noyse, after the comparison of a broken bell."

### The Meeting of the British Medical Association in Edinburgh, 1875.

A MEETING of members of the medical profession was held on Friday, the 20th, in the College of Physicians, Sir Robert Christison in the chair, to take the preliminary steps towards receiving the British Medical Association next summer. The Chairman remarked that by many it had been thought advisable that the British Medical Association should not have been invited to Edinburgh until the New University Building and the New Infirmary had been completed; but such a strong desire had been expressed on the part of many leading members of that body to visit Edinburgh, that it could not be overcome. He (Sir R. Christison) had been elected President-elect, and he ventured to express a hope that a warm and adequate welcome would be accorded to the expected visitors.

Dr. Matthews Duncan informed the meeting that Professor Spence had consented to give the Address in Surgery, Dr. Warburton Begbie that in Medicine, and Professor Rutherford that in Physiology.

### The Conjoint Examination Scheme for England.

THE *British Medical Journal* is "glad to learn that the Conjoint Committee of Reference are prepared to adopt a scheme which will aid in the solution of the difficulties which have been experienced by the College of Surgeons in reconciling the condition of its charter to the proposed arrangements for appointing examiners under the Conjoint Scheme. These negotiations have now lasted five years; they were commenced by the Colleges of Surgeons and Physicians, London, and the Universities. The Apothecaries' Society have made great sacrifices to assist in attaining a simplification of the system of examinations for an uniform and complete minor qualification to practise. It would be unjust to the London College of Surgeons to doubt their loyalty in a matter of so great national importance, and in which they have long been deeply committed to a measure which the Government, the Medical Council, and the whole profession in England agree to regard as one of pure utility. There has already been too much delay in this matter, and only the London College of Surgeons now stops the way."

On the 10th of December a dinner is to be given to Dr. Hardwicke, the new Middlesex coroner. Dr. Richardson, F.R.S., is to take the chair.



**Small-pox at Rugby.**

By telegraph we learn that small-pox has broken out in Rugby in a most alarming and sudden manner. The authorities held a special meeting on Saturday, and decided to build a hospital for the reception of patients forthwith. With commendable zeal, the work was at once undertaken, and a large body of workmen were engaged until late on Saturday night, and during the greater part of Sunday, in the erection of a temporary hospital.

**Acclimatization of Ipecacuanha in India.**

THE *Pharmaceutical Journal* notes that in the last report of Dr. King, Superintendent of the Calcutta Botanic Gardens, he states that the propagation of the ipecacuanha plant by root and leaf cuttings has been so successful that there is at present a stock of 63,000 living plants; whereas four years since there were at the Cinchona Gardens but twelve cuttings, of which seven were afterwards accidentally destroyed.

**Haydn's "Dictionary of Domestic Medicine."**

EVERYONE is acquainted with Haydn's "Dictionary of Dates," which has so long maintained its place as an indispensable book of reference. Messrs. Moxon have now issued a companion volume on domestic medicine, edited by the late Dr. Lankester, F.R.S. We by no means favour the domestic practice of physic; but there are cases in which a rational guide is of great value. Captains of ships on which no surgeon is carried, missionaries in far off settlements, and other educated persons in places where professional advice is unattainable, are glad to possess books of this kind. For all these we can recommend this dictionary. Its alphabetical arrangement makes it easy to refer to any point, and it contains sound advice on all questions of hygiene. It is therefore a great deal more than a mere guide to the medicine-chest. This might have been expected in a work to which Dr. Lankester lent his name; and he modestly tells us that he obtained the assistance of his professional friends on those points on which he felt to need such aid. We have tested several of the more difficult articles, and found them very good. We congratulate the publishers on having produced the best work of the kind.

**Diagnosis of Death.**

DR. MONTEVERDI DE CREMONI has proposed a simple, easy, and certain method of seeing whether a person is really dead. He injects a drop or two of ammonia beneath the skin. If the person be dead no effect, or next to none, is produced; but if the person be alive, a red colour appears at the point of the injection. He has published a pamphlet on the subject, illustrated with six plates, and the plan, simple as it is, seems likely to be useful, to prevent the possibility of burying alive.

By the will of the late John Paine, Esq., of Patcham Place, near Brighton, the Sussex County Hospital, Brighton, receives £5,000; the Brighton and Hove Dispensary, £5,000; and the Cancer Hospital, Brompton, £1,000. The testator also bequeaths about £15,000 to charities in connection with the Church of England.

**Dignified!**

THE Registrar-General has withdrawn his name from the list of honorary members of the Society of Medical Officers of Health because its President, Dr. Letheby, criticised so severely his statistics in the address of which we recently published a full abstract. We wonder if Major Graham imagines that he has demolished the Society, or furnished a reply to Dr. Letheby's strictures!

DEAN STANLEY has been unanimously elected Lord Rector of the University of St. Andrews.

THE death is announced of Surgeon-General Bent, M.D., who was stationed at Aldershot.

A GREAT number of inquests are reported in the daily papers from accidents that happened during the late fog.

BIRMINGHAM has obtained permission to make some new sewers, but is hardly even yet out of Chancery.

MR. HAVILAND has illustrated a recent report of his with two maps, to show the distribution of fever; this is an excellent plan.

THE Vestry of St. James's has decided to combine the offices of Public Analyst and Medical Officer of Health, and the decision is a wise one.

DR. PARKES has given notice of a motion to the effect that it is desirable to institute degrees in State Medicine at the University of London.

ST. JOHN'S HOSPITAL has decided not to accept any portion of the Hospital Saturday Fund for the present year.

ST. PETERSBURG is to be drained on Captain Liernur's system, at a cost which is estimated at nearly four millions. This system has been successful in Holland.

DR. LETHEBY has recently published (Statham and Co.) a useful paper on the right use of disinfectants, which was read by him a year ago at the Association of Medical Officers of Health.

ACCORDING to the report of the medical officer of health, Brighton is now in a very healthy condition. We are also informed by our correspondent that the weather lately has been very fine.

DR. RUSSELL REYNOLDS has published (Churchill) the Address in Medicine delivered by him at Norwich; it will well repay perusal. Its object is to show the influence which modern scientific thought and method exert on daily practice, and he expresses his belief in the value of subjective symptoms in most forcible terms. He treats of a belief in life, in man, in individuality, and in the speciality of disease. We have read the Address with much pleasure.

At Blackburn last week there were nine deaths from typhoid fever. The number of cases under treatment is about 400.

THE inhabitants of Hampstead are making great efforts to prevent the establishment of a fever hospital in their healthful suburb. It is not surprising they should be alarmed at the prospect.

At a meeting of the Stourbridge guardians on Friday last the governor of the house reported that two children had died from the effects of a dose of diarrhoea medicine administered by a nurse without orders.

THE inspector of burial grounds, Mr. P. A. Holland, has held an inquiry into some irregularities alleged to have occurred at Liverpool somewhat like those lately discovered at Tooting.

THE Duke of Edinburgh will preside at a meeting in Willis's Rooms, on Monday next, for the purpose of providing new buildings to meet the wants of the University of Edinburgh. A sum of £60,000 has already been subscribed, and a further sum of £40,000 is required.

DR. F. J. MOUAT has been appointed to fill the vacancy caused by the death of Dr. Edward Smith in the staff of the English Local Government Board. His duties will be those of Medical Inspector for the Provincial Poor-law Unions.

DR. THORNE THORNE has made a report on the outbreak of typhoid fever at Lewes, in Sussex. It seems to have been due to some children having in play fixed open a valve which prevented the tidal stream from passing into the reservoirs, a warning that such valves should be placed out of the reach of mischievous little fingers.

A GENERAL meeting of the Society of Public Analysts was held at the Cannon Street Hotel yesterday, at four o'clock p.m., to consider the definition of adulteration, and to deliberate upon the steps which it is desirable to take to further the amendment and consolidation of the Adulteration Acts.

ON Saturday an action was brought against Dr. Donald Macrae, who is in practice at Hanwell, by a Mrs. Taylor, wife of a draper, for an alleged assault. There was the charge, and the defendant's denial, which was confirmed by his witness. That there was the usual amount of false swearing on one side or the other is a matter of course; in which quarter it lay will have to be determined by a jury, the case having been sent for trial at the Sessions.

THE first meeting of the Surgical Society of Ireland, which was adjourned from last Friday, in consequence of the death of the late Dr. Hargrave, will take place on Friday evening next, in the Albert Hall, Royal College of Surgeons. The President of the College, Mr. Tufnell, will deliver an Inaugural Address, and the following communications are set down for reading: Mr. Mapother, 'On Cancer of the Male Breast'; Mr. H. G. Croly, "On

a Case of Tetanus;" Mr. Corley, "On a Case of Parotid Tumour."

THE Local Government Board have snubbed the Waterford Board of Guardians. A few days ago the Waterford Board passed a resolution to give the rural dispensary medical officers the munificent salary of £10 a year, or 6½d. per day, for all their labour and trouble under the Public Health Act, of which, by Act of Parliament, they are the chief officers. This resolution was sent to the Local Government Board in due course; but on Wednesday there was a reply from that body, which anyone might expect, that they could not sanction such inadequate salaries. Before the silly resolution was passed a juster and more reasonable salary was proposed—£20 a year—which the Local Government Board would be more likely to sanction; but the guardians, in their wisdom, threw this resolution overboard. On Wednesday the guardians received another letter from the Local Government Board, directing them again to reconsider the matter, and increase the salaries; but although a motion to that effect was proposed, it was defeated. The Local Government Board have distinctly stated their intention of fixing the salaries at the maximum.

## Transactions of Societies.

### MEDICAL SOCIETY OF LONDON.

MONDAY, NOV. 16TH, 1874.

DR. BROADBENT, Vice-President, in the Chair.

DR. THOROWGOOD read a paper on

#### GASTRIC VERTIGO.

Notes of two cases, as illustrating the following remarks were given. *Case 1* was that of a gentleman, æt. 45, regular and careful in his habits of life, and by no means addicted to stimulants. This patient was troubled by frequent attacks of giddiness and vertigo; at times he would fall in a faint, with transient loss of consciousness. Frequent and careful examination failed to detect any organic lesion. The face was pale; pulse slow and regular. A course of Vichy water disagreed notably in this case, and various tonics, such as iron, quinine, &c., failed to exercise any curative action over the syncopal attacks. Wine was recommended at meals; and brandy and water whenever the attack of vertigo threatened. This treatment was regularly carried out, and the patient became decidedly worse under it. As a part of complete change in the plan, alcohol was entirely abandoned, and by degrees the attacks of vertigo and syncope ceased. *Case 2.*—A lady, æt. 35, had frequent attacks of faintness in the morning on awaking, and at other times no organic lesion could be discovered. The use of alcohol always gave temporary relief; but by degrees the attacks became so frequent that the patient was alarmed at the constant necessity for the stimulant remedy. Iron, quinine, and a variety of tonics did very little good here, but a resolute adherence to claret and water to the exclusion of other alcohols, as a drink had an obviously beneficial effect. Dr. Thorowgood believed local cerebral anemia to be the pathological condition in these cases. In certain parts of the brain the arteries were spasmodically contracted, while the venous ventricles were full and engorged. It might be said that a bloodless brain was commonly assumed as the condition in a person given to fainting, and that the proper treatment was to stimulate the heart, and so send more blood to the brain. Against this idea it was urged that practical experience showed that stimulating the heart, while it relieved for a time, tended in the end to perpetuate the original malady. The

true pathology might probably be found in the observations of Dr. Fothergill on cerebral anæmia in the West Riding Asylum Reports, wherein were given the experiments of Cyon and Alladoff, showing the inhibitory influence of certain nerves over the vessels of the brain in causing their contraction, and limited anæmia as a result. These inhibitory nerves had been traced from the liver up the vertebral arteries to the brain. Irritation of stomach and liver thus propagated to the brain caused spasmodic contraction of arteries, and local cerebral anæmia, with all its recognised consequences. Alcohol, by tending to irritate the liver, would therefore be injurious. The cure of these cases, even when very inveterate, might confidently be looked for, in, first of all things, careful regulation of the supply of alcohol, coupled with moderation as to diet, regular exercise, and so forth. As medicines, columba, with bicarbonate of soda, and tincture of ginger would be found very useful, the alkali tending to correct any acidity about the juices of the stomach induced by alcohol taken when the stomach was empty. Such acrid secretion would cause feeling of faintness, and a not unnatural craving for a little brandy. The ginger in a small dose would act as a stimulant mildly, and so relieve the craving for brandy or sherry. Subsequently the use of iron in combination with sulphate of magnesia or soda was to be recommended as a tonic laxative. By this simple method, carried out with decision, it was not too much to say that cases that had been called incipient epilepsy, or instances of very obscure nervous disease, might readily be cured.

Dr. FOTHERGILL was flattered at the allusion made to his essay in the West Riding Reports, and remarked that a clear connection had been made out between the stomach and the larger nerve centres through branches of the sympathetic, the occipital lobes being the portions of the brain implicated. Anæmia of the brain was not always accompanied by depression of spirits, and in these cases the state of the vessels of the brain was more probably that of spasm than of anything else. He could not help alluding to Dr. Ferrier's experiments on monkeys, where irritation of the occipital lobes produced marked symptoms of melancholia.

Dr. THEODORE WILLIAMS had seen many cases similar to those narrated by Dr. Thorowgood, and while agreeing with his treatment, he could not altogether endorse his pathology. Most of these cases occurred among people with tippling habits, whose practice it was to take stimulants between meals whenever they felt what they call "low." The result was bad in two ways—(1) the alcohol introduced into the stomach caused a large secretion of gastric juice, which, having no food to act on, irritated the mucous membrane, and gave rise to flatulence, distending the stomach, and thereby disordering the heart's movements—hence palpitation and irregular supply of blood to the brain, with its accompanying symptoms; (2) the waste of gastric juice prevented a proper amount being forthcoming at meals—the food was only partially digested and escaped assimilation—hence starvation of the blood and consequent anæmic symptoms. The treatment most successful, therefore, in these cases, was a careful combination of food with stimulants, and a reduction of the latter as much as possible.

Dr. ROUTH agreed with the author as to the common occurrence of these cases among women, often accompanied by leucorrhœa. Chronic alcoholism he noticed chiefly among matrons, and he treated it by two methods: the hankering after stimulants he satisfied by a harmless one, in the form of a-safetida, or valerian, or else he gave raw beef juice, prepared by rubbing beef through a sieve, and flavouring it with a little celery. Three claret glasses a day were given of this juice, and it allayed the hankering for spirits without causing tapeworm. He cited a remarkable instance of recovery from its use.

Dr. BROADBENT was not sure these cases came under the head of vertigo at all. He noticed vertigo to exist in two opposite states of the vascular system—(1) with the arteries quite relaxed, skin moist, and the pulse soft; (2) with the arteries tight, and the pulse strong and firm. He endorsed the author's treatment.

Dr. THOROWGOOD, replying, said that all his cases were not those of habitual tipplers, and that he had used the term vertigo for want of a better.

Dr. LEONARD SEDGWICK read the records of

#### A CASE OF RUPTURE OF MUSCLES AND PULMONARY EXTRAVASATION.

After a railway collision a gentleman, æt. 66, who was much shaken, and who was cut over the eyebrow, was seized on the third day after with a severe sickening pain in the left

calf, where there was a tender depression and some ecchymosis, as well as a yellow branched line in the site of the inner saphena vein. On the twelfth day he had an isolated patch of tinea outside the lower angle of the scapula, where the breathing was turbulent, the percussion dull, and over which there was some friction sound. The pleuritic pain was relieved by leeches; but a few hours after a sudden pain struck him in the lower part of the right chest, like that in the calf, and there was over the base, and a little below the lower ribs, a harsh grating noise, audible at a distance, produced apparently by irregular and severe contraction of dorsal muscles, coincident with each respiratory murmur, and caused, as the author believed, by rupture of muscular fibre. At a later period of the case the right calf of the leg was affected in the same way as the left had been. The agonising pain in the back was speedily relieved by injection of morphia, and simultaneously the harsh bruit ceased.

Dr. SEDGWICK was of opinion that the pulmonary extravasation was shown by the expectoration of blood clot, and was caused by the arrest in the lung of a small piece of clot which had been broken off from that in the leg.

After some remarks by Drs. CROMBIE and BROADBENT, Dr. T. S. DOWSE brought forward the clinical history and pathological appearances of a case which to him seemed obscure both in its etiology and diagnosis. The patient was 31 years old. The special features were allied to a cerebro-spinal meningitis, uræmic poisoning, typhoid poisoning, or to some other morbid factor. But the signs and symptoms throughout the course of the diseased state were not absolutely relevant to either of the foregoing conditions. There was more or less somnolence, with twitching of bilateral groups of facial muscles, pseudo-paraplegia of the lower extremities, with cutaneous anæsthesia and muscular hyperæsthesia. There was persistent diarrhœa, with involuntary discharges; no vomiting; the most marked feature was the moist, clean, healthy-looking tongue, which remained until within a couple of days of her death. The ratio of pulse, respiration and temperature was fully detailed. At the post-mortem there was diffuse amyloid change over the cerebral hemispheres, with an increase of fluid in the sac. The pia mater was hyper-vascular. These conditions existed also in the membranes of the spinal cord, which seemed softened in the dorso-lumbar region. The lungs were healthy. There were recent adhesions between the layers of the pericardium, and attached to the anterior cusp of the mitral valve was an organised mass of laminated fibrin, the size of a small walnut; the other cusp was quite healthy. The cavities of the heart were otherwise free from blood, or ante-mortem polypoid clot. On account of this growth there could not have been complete closure of the valves, which gave rise during life to a pure and definite diastolic murmur. This Dr. Dowse thought exceptional, and differing altogether from the pre-systolic grind of a stenosed orifice on the one hand and the systolic regurgitant bruit on the other.

Dr. BROADBENT thought it was an instance of ulcerative endocarditis. Slight ulceration of a portion of the mitral valve had occurred, in which a clot of blood formed which was fibrinous. Minute portions of this had become detached and were carried into the capillaries of various organs, causing small embolisms, and giving rise to pain in the spleen, the symptoms of paralysis, &c. In these cases the embolisms were very minute, and not visible to the naked eye, but could be detected under the microscope. He remembered a case where large thrombi were found in both radial and femoral arteries. As a rule, cases of capillary embolism were accompanied by minute petechiæ of skin.

Dr. THEODORE WILLIAMS had some doubt about the blood-poisoning in this case, and, while concurring with Dr. Broadbent that it was a case of ulcerative endocarditis, drew attention to the fact that no emboli were found in the liver or lungs, the most common seat of this occurrence.

Dr. DOWSE, replying, said no embolisms were found in the brain or spinal cord.

## Literature.

### THE PROTOPLASMIC THEORY OF LIFE. (a)

The author of the work before us is well known to the

(a) "The Protoplasmic Theory of Life." By John Drysdale, M.D. London: Baillière, Tindall, & Cox. 1874. 8vo, pp. 289.

scientific world by his works on the microscopic investigation of the interesting point of spontaneous generation, and on life and the equivalence of force.

The subject of this work was the theme of an inaugural address to the Microscopical Society of Liverpool, delivered by him as President. It is divided into twelve chapters. Chapter i. treats of Dr. Fletcher (Edinburgh) theory of one only living matter. In 1835 Dr. Fletcher laid down that "if vitality do not reside in a separate principle, but depend on the mode of combination of the elements of the organic parts themselves, there can be no central vital influence communicable to the parts and dominating them, for the vitality of each must be inherent in itself, and, as a property of the material compound, cannot be transferred to the smallest distance; each part, organ, and even cell, therefore, possesses a quasi-independent life, and they are all bound together to form an individual merely by the ties of a central nervous system and common circulation, or some similar means." . . . "That the property of vitality does not reside equally in the various organic structures requiring such different physical properties, but is restricted solely to an universally diffused, pulpy, structureless matter, similar to that of the ganglionic nerves and to the grey matter of the cerebro-spinal nervous system."

The elements of this substance are in a state of combination not to be called chemical at all, in the ordinary sense, but one which is utterly *sui generis*. In fact, no albumen, fibrin, protein, or fats exist at all in living matter, but that the sum of the elements of these is united into a compound for which we have no chemical name, and it is only at the moment of death that these chemical compounds with which we are familiar take their origin.

The physical and chemical description of this one true and only living matter is that of a pulpy, translucent, homogeneous matter, yielding after death fibrin. Thus, all that is properly called structure, and gives beauty, form, and fitness for purpose to animals and plants is dead, and composed of merely chemically combined elements, just as we find it after death.

In chapter ii. the author treats of the cell theory before 1860. In 1838 the microscope was sufficiently perfected to give a solid basis for the observation of facts. Schleiden, the founder of the cell theory, defines the vegetable cell as "the elementary organ which constitutes the sole essential form element of all plants, and without which a plant cannot exist, and as consisting, when fully developed, of a cell-wall composed of cellulose lined with a semi-fluid, nitrogenous coating." Schwann observed that the whole organism subsists only by means of the reciprocal action of the single elementary parts. The cause of nutrition and growth resides, not in the organism as a whole, but in the separate elementary parts, the cells.

The author remarks on this theory, that in all modifications of the cell theory, even those which allow for the occasional absence of the cell-wall, that part when present is believed to take an active part in the strictly vital process of transformation into tissue; but the cell-wall possesses a certain rigidity, and shades off into the intercellular substances, which offer an infinite variety of composition, many of them being non-nitrogenous, a composition incompatible with life. For these reasons the attribute of vitality cannot reside in anything of the nature of a cell-wall and of a cell taken as a whole.

In chapter iii. the author speaks of the protoplasmic theory before 1860. It appears from the analysis here given that the threefold form of the cell was soon given up, and that, although the dual form of the nucleated cell, without cell-wall, nominally holds its place, still, life has been shown to exist in the simple form of a structureless, viscid, semi-fluid matter common to both animals and plants.

In chapter iv. Dr. Drysdale treats of Beale's protoplasmic theory. In 1861 Dr. Lionel Beale, who had devoted himself with unwearied zeal to microscopical research on the animal tissues, delivered some lectures before the Royal College of Physicians. The cardinal point in

Beale's theory is that, from the earliest visible speck of germ up to the last moment of life, in every living thing, the attribute of life is restricted to one anatomical element alone, and this homogeneous and structureless; while all the rest of the infinite variety of structure, solid and fluid, which make up living beings, is merely passive and lifeless formed matter. This is called by Beale *bioplasm*, and is described as "always transparent and colourless and structureless" at all points of its existence, whether in an oak or a vertebrate animal.

The name *bioplasm*, or *protoplasm*, is thus given to the ideal living matter of all plants and animals.

According to Beale, "of the matter which constitutes the bodies of man and the animals in the fully-formed condition, probably more than four-fifths are in the formed and non-living state. All this was, however, living at an earlier period of existence." On *bioplasm* depends all growth, multiplication, conversion, and life. The difference between it and *pabulum* is absolute. The ultimate particles of matter pass from the lifeless into the living state, and from this into the dead state, suddenly. Nothing is known of the chemical composition of *bioplasm*, says Beale. When a mass of *bioplasm* dies it is resolved into fibrin, albumen, fatty matters, and salts.

It seems that *bioplasm* has the property of alone becoming tinted by a solution of carmine. *Bioplasm* is constantly present in all living parts of the same animal; even in the vitreous humour numerous *bioplasts* exist. It is predominant in young, growing parts, and the activity of growth of a part may be judged of by the number of *bioplasts* it contains. Thus, Harvey said, *Omne vivum ex ovo*; Edwards, *Omne vivum e vivo*; Virchow, *Omnis cellula e cellula*; and Beale says, *Nihil vivum nisi protoplasma*.

Chapter v. contains a continuation of the subject, and refers to objections to Beale's theory. Dr. Wyville Thompson thinks it more probable that *protoplasm* has always the same composition, and that it acts by catalysis.

Beale speaks thus of the blood: "I believe that the *bioplasts* of the capillary vessels play a far more important part in the changes in the body than has hitherto been supposed. The *bioplasts* of the capillaries in the lungs are the agents by which certain animal matters are separated from the blood and transferred to the air in the pulmonary air-cells."

Chapter vi. treats of the cell and *protoplasm* theory since 1860. The author says: "While we find *protoplasm* generally admitted to be the simplest form of living matter, and credited as the agent of much vital action, and ever as the germinal substance from which all tissues proceed, yet it is far otherwise with the doctrine that it is the sole living matter in organisms with a complicated structure. Indeed, in this Beale stands alone among living physiologists, just as Fletcher did nearly forty years ago. The doctrine has hardly even been properly criticised as yet; in fact, its significance has not been fully grasped, and people seem to be satisfied without further thought that a system which makes four-fifths of a man, including the muscles and nerve cords, to be nothing but dead matter, must be an error of some kind; and this, with the erroneous idea that it rests on the carmine staining process and requires the revival of the vital principle, further indisposes them to give the theory the attention it merits."

In chapter vii. the author gives a commentary on Beale's nerve theory, and in chapter viii. his muscle theory. In page 167 he says: "These facts form an insurmountable argument against Dr. Beale's hypothesis that electricity is the nerve force, and exactly his theory of muscular action adds insuperable force to the argument against the electric theory, for, although it might not have mattered so much sending the force of a mere stimulus, of which so small a quantity is needed, through a bad conductor, how can we reconcile it with the economy of nature, that a force which has to do the whole work of the muscles should be sent through a conductor which offers three million times the resistance of mercury, and still more than that of silver or copper. We are, I think, compelled

to conclude that the force must be a distinct force, not like light, or sound, but a current force analogous to electricity, galvanism, and magnetism, but distinct from these."

In chapter ix. Dr. Drysdale speaks of the nature of life. Dr. Fletcher, it seems, holds vitality to be synonymous with irritability, or the faculty of undergoing, upon the application of a stimulus, any change not strictly chemical or mechanical. Life is, therefore, not an entity, nor a force, but an action, and, moreover, that action alone which is involved in the consumption and regeneration from pabulum of a material compound entirely *sui generis* called irritable matter, or protoplasm, under certain conditions and stimuli. Living matter has long intervals of a resting stage, or even a state of suspended animation. In seeds and germs life seems dormant for long periods, and all change is reduced to a minimum. "Dr. Beale still clings to his theory of a hyperphysical cause or vital principle which can initiate vital movements. Formerly he did not hesitate to say they were directly the offspring of a hyperphysical vital power, but having stated that he did not assert the creation of force by living matter, he is now obliged to deal with the subject in a more guarded manner, and it is not easy to say what he does mean in his third edition of 'Protoplasm,' where he says that the antecedent that occurred just before the vital movement cannot be proved to be phenomenal."

"But the strongest proof of the non-existence of spontaneity is given by Beale's absolute denial of the existence of unipolar nerve cells. There are always two poles at least, and often many more. If the nerve-cell could start into activity spontaneously, and if any purpose were to be served thereby, one cord would be enough to convey the evolved energy, as far as we know, for we do not know that the second is necessary for any electrical reason, i.e., to complete the circuit. The second is no doubt an afferent, or commissural fibre, whereby the stimulus is conveyed to the nerve-cell for the purpose of exciting it to activity at the right time, and so there can be in health no other mode of activity possible, for that would frustrate the very purpose of the organ. A portion of the grey matter upon the surface of convolution not larger than the head of a small pin will contain portions of many thousands of nerve fibres, the distal ramifications of which may be in distant and different parts of the body. The bioplasts referred to are directly concerned in mental action. Movement affecting the matter of many thousands of these minute bioplasts, probably at the same moment, is required for the initiation of the simplest idea."

Chapter x. treats of the connection of force with life and mind. Force, says the author, is not an object capable of existing *per se*, but is only the motion of matter and æther, or the pressures antecedent to that motion. It is but an affection of matter. "Force," says Mayer, "is that which is expended in the production of motion, and what is expended is, as cause of the effect, equal to the motion produced." The discovery of the mechanical equivalent of heat has given the death-blow to the notion of all inherent powers of attraction and repulsion as properties of matter, as well as all action at a distance, which were till lately generally held, in spite of the strong objections of Newton himself. Matter without weight is not only conceivable, but it is easy to calculate the position in space when it can have no appreciable weight. Matter also may be conceived, according to the author, as existing without force, although chaos would result.

"When Professor Tait applies the term *pernicious nonsense of the materialist* to the deduction that volition and consciousness depend on modes of being of matter, he either commits the mistake exposed by Fletcher, that because inorganic compounds of matter do not show life or mind, therefore no other mode of combination, such as protoplasm, can, or falls into the common error of confounding the immortal soul granted to man alone with the life and mind of animals."

In chapter xi. Dr. Drysdale treats of albumen and the physical basis of life. "Protoplasm," says Huxley, "simple or nucleated, is the formal basis of life; it is the clay of

the potter, which, bake it, paint it as he will, remains clay, separated by artifice, and not by nature, from the commonest brick or sun-dried clod." He then speaks in favourable terms of the theory of Darwin and Herbert Spencer, and gives his own experiments, which oppose the views started by Bastian.

Chapter xii. treats of the existence of a God and a future state, and the author, we may add, boldly defends the doctrine that a revelation has been given to man concerning his immortality.

We cannot quit Dr. Drysdale's work without the highest commendations of the honesty, deep thought, and research exhibited in almost every page. It is the result of a man's life of thought. May it be widely read and pondered over.

### ANNUAL REPORT OF THE SUPERVISING SURGEON OF THE MARINE HOSPITAL SERVICE OF THE UNITED STATES FOR THE FISCAL YEAR 1873. (a)

THE second annual Report, for such it is, demonstrates the judicious efforts made by the United States to care for and encourage seamen.

For some years the Great Western Republic has evidenced sound wisdom in its advancement of sanitary medicine, and in the recognition of the value of the services of the medical profession, as the legitimate machinery for furthering the policy of protecting the health and lives of its citizens.

The quarantine system, being slowly, but surely revived in England on a scientific basis, and one not calculated to interfere with legitimate commerce as seen in the ports of London and Liverpool, has been in force for some time in the chief ports of the United States.

The Marine Hospital Service is made to hinge on to the Quarantine Service, so to speak.

According to the Report, "The quarantine of the port of New York is the most extensive and elaborate, as it is at present unquestionably the best administered and most efficient system in the world; the vessels of all nations through the harbour, bringing from all climes the most diverse cargoes and crews; the small-pox, typhus, and cholera, of an immense immigrant service, and the fevers of the tropics, continually threaten, and demand an unrelenting vigilance. And yet this vigilance is exercised, and the health of the port is perfectly protected, in entire harmony with the regulations necessary to ensure the care and relief promised by the Government to the sick and disabled seamen."

The vast importance to a great commercial country such as England is, and as America is endeavouring to become, of efficient seamen, is seen by the recommendation given by Dr. Woodworth for the adoption of a compulsory medical inspection of seamen before shipping.

He aptly remarks that such a step would eliminate "a class of patients who alternate between the hospital and the fore-castle with a decided preponderance towards the former." The Report is well worth reading, and furnishes an account of the sufferings of sailors, and the consequent danger to passengers, ships, and cargoes by the ill-treatment of sailors permitted in the States, and perpetrated often upon sick and defenceless seamen by the vile class of boarding-house keepers that through the parts of the American towns resorted to by seamen.

Whilst just condemnation is pronounced upon this class, representatives of which are to be found also in the ports of the United Kingdom, very serious charges are also made against the working of the recent law, whereby a class called shipping commissioners and deputy shipping commissioners are appointed.

(a) "Annual Report of the Supervising Surgeon of the Marine Hospital Service of the United States for the Fiscal Year 1873." Jno. M. Woodworth, M.D. Washington Government Printing Office, 1873.

Indeed, with the evident desire to benefit and act well by her seameh, the United States Government is shown not to have failed to protect her mercantile marine service in a manner worthy of a great nation. Abuses will probably be in time much lessened or removed.

The Report is creditably got up, and contains drawings, plans, &c.

## Obituary.

### WILLIAM HARGRAVE.

THE death of Dr. Hargrave, which occurred last week, has removed from the professional brotherhood in Ireland one of its best known members, and one whose name and works have been associated with it for nearly half a century.

William Hargrave was the fifth son of Abraham Hargrave, Esq., architect. Born in the city of Cork, in 1797, he was placed at an early age at Mr. Adair's School in Fermoy. From this seminary he entered the University of Dublin as a Fellow Commoner under the Rev. Daniel Mooney, when his "chum" happened to be Jones Quin, afterwards the distinguished Professor in the London University, with whom and the late Chief Baron Pigot, who was likewise his contemporary, he cultivated a friendship and intimacy which continued uninterrupted through after-life. Previous to graduating, Dr. Hargrave selected the surgical profession, and was apprenticed to the late Sir Philip Crampton, of whose high professional reputation our country might well be proud. Having completed the period of his apprenticeship at the Old Meath Hospital under Sir Philip Crampton, he obtained his licence at the College of Surgeons, and subsequently repaired to Edinburgh, where he availed himself of the advantages of that celebrated school of medicine. On his return to Dublin he took out his degree of Bachelor of Medicine in Trinity College. Thus qualified, he visited Paris, where he studied under Dupuytren and Laennec. Subsequently he visited Germany, Switzerland, Italy, and Greece, and returned to Dublin after an absence of two years. Then it was he entered on his professional career with a degree of energy and zeal seldom surpassed. At the rear of his house—134 Stephen's Green—he fitted up an anatomical theatre, where he was surrounded by a large class of students anxious to avail themselves of his instruction. Probably in this step he was influenced by the example of his distinguished master, Sir Philip Crampton, who in early life used to instruct his pupils in a stable loft at the rear of his house in Dawson Street. It may be interesting to record here that amongst Dr. Hargrave's first pupils was Charles Lever, who was then studying the medical profession. The high estimation in which the lectures delivered by Dr. Hargrave were then held is proved by the fact of their subsequent recognition by the licensing bodies. After the lapse of a few years he, in conjunction with Sir Dominic Corrigan, the late Mr. Auchinleck, Drs. Churchill and Hunt, founded a medical school in Digges Street, from which he withdrew on his appointment to the Chair of Anatomy at the College of Surgeons, which he subsequently relinquished for the Professorship of Surgery, rendered vacant by the retirement of the late Dr. Samuel Wilmot. About the period of his appointment to the Chair of Practical Anatomy Dr. Hargrave became one of the surgeons to Baggot Street Hospital, where, until his health began to fail, he devoted all his skill and characteristic energy to the relief of the poor sufferers committed to his charge.

Professor Hargrave's surgical work within his hospital and his practice was extensive, and sterling in its character, and he has committed to the press several records of unique and valuable surgical and anatomical experiences. His largest work was his monograph on operative surgery, published in 1831, and it was followed in later years by a remarkably original paper on the uses of Meckel's ganglion, which he published in the *Edinburgh Medical Journal*. He also enriched the literature of

surgery with a communication on the demonstration of arteries by the transverse section of muscles—a paper on a new form of dislocation of the head of the humerus. One of his most creditable surgical feats was the operation of ligaturing the left common iliac artery, the second occasion, and the first successful case, in which that proceeding was followed in Ireland. This remarkable operation was performed by him in the City of Dublin Hospital, in 1865, and, the patient having afterwards died of gangrene of the foot, the specimen is now in the Museum of the Royal College of Surgeons in Ireland, and was recently exhibited by Mr. Holmes in his lectures on aneurism before the London College.

"It has on various occasions been," says a biographer in the *Dublin Evening Mail*, "the writer's lot to witness the anxious solicitude often displayed by Dr. Hargrave as an hospital surgeon, and it is enough to say that it was only consistent with his naturally kind and benevolent disposition. The excellent hospital with which he was so long connected seemed to have constituted the last link of his connection with professional life. As consultant he was to the last anxious about its suffering inmates. He has now retired from this busy scene of life, honoured with all the distinctions his profession could bestow, a lasting memorial to his memory: 'Non omnis moriar, multaque pars mei vitabit libitinaum.'"

Dr. Hargrave's medico-political life was directly and intimately connected with the Royal College of Surgeons, in which he served as President, for very many years as Councillor, and afterwards as its representative on the General Medical Council. On many occasions he was selected to speak on behalf of the College when its interests were represented by deputations in London, and his relation to the College in this capacity terminated only with the physical disabilities of advanced age. His memory will long be respected in his profession as that of a man unfailingly truthful—loyal to his College, and honest in his views and speech, and indefatigably zealous in the pursuit of every movement which promised to benefit either his professional brother or the College which he served.

### THE LATE SIR J. R. MARTIN, C.B.

A VERY well-known and conspicuous figure in London medical society has passed away in Sir Ranald Martin, whose death will be deeply regretted both in England and India, in both countries of which he was greatly esteemed for his skill and his personal qualities. His death may be called unexpected, inasmuch as only a week or two ago when he resigned his appointment at the India Office, it was stated in several of the papers that he still enjoyed good health, and only sought the repose to which he was so well entitled, after more than half a century of honourable service. In 1817 he became a medical officer on the Bengal Establishment; in 1821, in the Burmese war, he had charge of the body guard of the Governor-General; and in various capacities he continued to serve the honourable East India Company up to 1840, when he was compelled by the state of his health to leave India. He then retired from the service of the Company, and in due course began consulting practice in London, where he continued up to the time of his death to be the chief authority on tropical diseases. During his Indian career he practised in Calcutta, and his name has always been revered at the General Hospital of that city. In 1843 he was elected a Fellow of the Royal College of Surgeons of England, and two years later was admitted a Fellow of the Royal Society. It was not until 1859 that he was appointed medical adviser to the India Office, with the rank of Inspector-General; his public services up to that time had been considerable, and his valuable volume on "The Influence of Tropical Climates" had then made his name known wherever English medical literature is read, and will no doubt long be considered a classical work.

After a year's service at the India House he was knighted, and also received the Companionship of the Bath.



It was thought by many that he ought to have been made a K.C.B., and at a later period Mr. Sidney Herbert, as War Minister, actually recommended him for that distinction. It was not, however, granted at the time; and it has been suggested that his retirement would afford the present Government an opportunity of remedying the omission: the delay has, however, been too long, and death has stepped in to prevent it. The proverbial neglect of the profession by successive governments is thus once more illustrated. A man may toil in the British Medical Service for nearly sixty years—may confer inestimable benefit on his fellows—may attain the highest fame—and may, if only a doctor, receive no further recognition of his services than many a so-called competent officer who has never been in any engagement, but has the luck to have influential connections. The lesson is one we have often enforced before. We submit it again to those who may have been responsible for the injustice, and some of whose names will be forgotten when the memory of Sir Ranald Martin will remain as fresh as now. After all, he did a good work, and his fame has long been secure—indeed, he lived to reap a very substantial reward in the well-nigh universal confidence of his professional brethren.

## Correspondence.

### HOSPITAL SATURDAY.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—Can you spare a corner for a few lines respecting the remarks in your last issue on Hospital Saturday. Agreeing fully with the idea that the working classes were not satisfied with the *bona fides* of the machinery employed for the purpose of gathering their subscriptions, I cannot endorse the assertion that they prefer spending their money in the public-house. I know full well the shortcomings of the class to which I belong, and also their good deeds. Any charitable matter which may require their aid, and of which the *bona fides* are satisfactory, meets with their hearty support, even to saving from public-house expenditure; but, although their wages may be “enormous,” if they have a doubt of the judicious expenditure of their contributions, they very properly stand aloof. The benefits of the hospitals they are not slow to recognise, and, as occasion may arise, support; I know that full well: but with regard to the movement under discussion, an impression had gone abroad amongst them that the Temperance Hospital would not share the proceeds, which was true of the Sunday collection; and when an impression once takes hold of them it is difficult to remove it. The teetotallers, I have no doubt, did not give largely to the Saturday fund; not because they prefer “beer and ‘bacca,” but because they mean to support their own hospital, since the Sunday Hospital Committee excluded that establishment. And if the charge be true of mispending their “large” wages, will the medical faculty aid us in teaching them better? When the medical men and the clergy abstain from opposing the temperance movement better things may be expected from the too-much petted and too-much maligned “working man.” I send you a Resolution passed by Good Templars, in hope that your noble profession may help us in the endeavour to benefit our own order, which will react on society at large, and in due time abolish these miserable class prejudices.—I am, Sir, yours faithfully,

A WORKING MAN.

58 Poland Street, Oxford Street,  
Nov. 20, 1874.

### MEDICAL MEN AND THE PRESCRIPTION OF ALCOHOL.

The “Prince Llewellyn” Lodge (1,404), of Liverpool, has just adopted an important resolution on this subject, copies of which are being forwarded to the medical men of the neighbourhood, accompanied by an appropriate letter under the signature of Bro. J. Mathias, W.C.T. The resolution is as follows:—

“That, viewing the many and very serious evils caused to many of our members, arising and resulting from ‘the pre-

scription of alcoholic liquors (intoxicants) during times of sickness’—especially to those of them who were once immoderate or confirmed drunkards, the taste of which liquors to them is sufficient to rekindle within them

that demon, the insatiate appetite for these drinks, which, as we have known in many, will drag them down once more into the lowest depths of vice and degradation—so low, alas! as to make it next to impossible to reclaim them again to the paths of sobriety, truth, and virtue; the greatest number of whom are never reclaimed, but go down lower and lower, until eventually they fall into a drunkard’s grave and go to a drunkard’s doom,—what responsibility!—viewing this momentous fact, we most respectfully plead with you, as with all medical gentlemen within our locality, to at least use extra caution ere you recommend such drinks to any of our members when under your care; we would even plead for non-alcoholic treatment in all such cases.”—*Good Templars’ Watchword*, Nov. 12.

### THE PEN VACCINATOR.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

DR. GEO. ED. NICHOLAS, of Wandsworth, takes the advantage of the favourable notices of my new invention, the “Pen Vaccinator,” which has appeared in several of the medical journals, to draw the attention of the profession to his “Vaccine Injector,” which he has resuscitated after eighteen years of oblivion.

It seems that Dr. Nicholas and I are each of us indebted to the well-known mathematical drawing-pen for our idea of a vaccinating instrument. While, however, I admit that his adaptation is antecedent to mine, I deny that the pen vaccinator is a modification, slight or great, of the vaccine injector, the existence of which latter instrument I was first made aware of by Dr. Nicholas’s recent letter.

Permit me, Sir, to say, that among the advantages I proposed to embody in my adaptation of the drawing-pen to the purposes of vaccination were an apparatus capable of carrying with it a reserve of lymph in capillary tubes or on ivory points, the blades of which should hold a charge of moist lymph for a considerable time without rust or corrosion, the whole to be in a portable form for carrying in the waistcoat-pocket. These points are all included in the pen vaccinator, but not one in the vaccine injector, the illustration which accompanied the letter of Dr. Nicholas in your issue of the 25th inst. being merely that of a mathematical drawing-pen without alteration, excepting in name.

Anyone who takes the trouble to glance at the illustrations will see at once that the two instruments are widely different.

I am, Sir,

Your obedient servant,

R. HARVEY HILLIARD, M.D.

5 Belgrave Terrace, Upper Holloway,  
Nov. 26th, 1874.

## Medical News.

Royal College of Surgeons of England.—The following gentlemen, having passed the necessary examination, were duly admitted Members of the College on the 19th ult:—

Barker, Henry Martyn, Bedford.  
Bate, George, L.S.A., Camelford, Cornwall.  
Bedford, Charles F., Sleaford, Lincolnshire.  
Blackmore, George Henry, Hammersmith.  
Cor, William W., M.D., Lee, Kent.  
Dryland, William, Dulwich, Surrey.  
Ellerton, John F. H., Huddersfield.  
Gravely, William Holmwood, Horsham, Sussex.  
Hoffmeister, John Bates, Cowes, Isle of Wight.  
Oakendon, Arthur John, Brighton.  
Parkinson, John Rendall, Preston.  
Phillips, Arthur O. H., Newcastle Emlyn.  
Roberts, Theophilus L., Alfreton, Derbyshire.  
Ross, William A., Alderney.  
Sheehy, William H. P., Claremont Square.  
Verco, Joseph Cooke, Ovington Street, Chelsea.

Wandby, William, Mile-end Road.  
Waller, William B., L.S.A., Sydenham.

Of the 92 candidates examined, 18 failed to satisfy the Court of Examiners, and were referred for six months' further professional study.

The following passed the first part of the professional examination for the Fellowship on the 24th and 25th ult. :—

John Morgan, Bristol and Guy's Hospital; Francis Joseph Davies, University College; Joseph Wm. Anningson, Manchester; Henry Ambrose Lediard, Edinburgh; Rutherford, J. Pye-Smith, Robt. Edmund Carrington, and Edward Amphlett, Guy's Hospital; William Harrison Cripps, Charles Firth, Hugh Gordon Cumming, and William Gammon Archer, St. Bartholomew's Hospital; J. H. Morgan and Henry Blake, St. George's Hospital; Robert Henry Clarke, Cambridge and St. George's Hospital; Thomas Cranston Charles, Belfast; Ernest Tredennick, James A. M. Moullin, Henry Percy Potter, and George Henry Makins, St. Thomas's Hospital.

Of the 39 candidates examined, 20 failed to satisfy the Court, and were referred for six months' further anatomical and physiological study.

**University of London.**—Candidates who passed the recent second M.B. examination for Honours :—

#### MEDICINE.

##### First Class.

Gould, Alfred Pearce (*Scholarship and Gold Medal*), University College.  
Duncan, Andrew (*Gold Medal*), King's College.  
Eastes, Thomas, Guy's Hospital.  
Duncan, Peter Thomas, University College.

##### Second Class.

Sturge, William Allen, University College.  
Rigby, James Arthur, Guy's Hospital.  
Crocker, Henry Radcliffe, University College.

#### OBSTETRIC MEDICINE.

##### First Class.

Gould, Alfred Pearce (*Scholarship and Gold Medal*), University College.  
Duncan, Andrew (*Gold Medal*), King's College.  
Eastes, Thomas, Guy's Hospital.

##### Second Class.

Rigby, James Arthur, Guy's Hospital.  
Duncan, Peter Thomas, University College.  
Sturge, William Allen, University College.  
Branfoot, Henry Seymour, Guy's Hospital.  
Crocker, Henry Radcliffe, University College.

##### Third Class.

Nicholson, Arthur, King's College.  
Harris, Vincent Dormer, St. Bartholomew's Hospital.  
Whittle, Edward George, University College.

#### FORENSIC MEDICINE.

##### First Class.

Crocker, Henry Radcliffe (*Scholarship and Gold Medal*), University College.  
Gould, Alfred Pearce (*Gold Medal*), University College.  
Duncan, Peter Thomas, University College.

##### Second Class.

Duncan, Andrew, King's College.  
Eastes, Thomas, Guy's Hospital.

**Hospital Saturday.**—At a meeting of the Council, held on Saturday, at the Central Offices, Leicester Square, Captain Mercier, the Chairman of the Fund, presiding, the distribution of this year's Hospital Saturday collection was considered; and on the motion of Mr. George Odger, seconded by Mr. Patrick Kenny, it was resolved to issue to the hospitals and dispensaries a form containing a series of questions, with the understanding that in the event of the form not being returned by the 16th of December, the Council will assume that the institution concerned does not wish to participate in this year's distribution.

**Hospital Sunday in Devonshire.**—On Sunday last, at the instance of the bishop of the diocese, an appeal was made in all the churches of Devonshire on behalf of the County Hospital at Exeter. Most of the nonconformist ministers also, in response to a request of the high sheriff of the county, appealed to their congregations in support of the funds of the same institution. The preacher in the cathedral, Dr. Boyd, made some very opportune remarks, which go to confirm the statements recently made by us, and which have been impugned in certain interested quarters. He said that in the administration of charities there was a great deal of mismanagement, a very large proportion failed to reach the objects intended, and secretaries' salaries, luxurious offices, and things that came under the head of fire, stationery, and fees, swallowed up a very large percentage of what was contributed for the relief of destitution. Another difficulty was lavish and indiscriminate administration of charity. He then adverted to the habits of the working classes, who, he alleged, spent £75,000,000 a year in drink. The two great trades of England were cotton and woollen manufactures. In 1840 there were working in woollen manufactories 334,640 persons at 10s. per week. Their annual income would be £3,670,000; add one-fifth for increase in wages and population, and the income would now be £10,176,000. Many did not work more than four days a week, and it might fairly be said that men in this trade struck off, by waste of time, on "idle Monday," one-sixth of what they could earn, or at least £1,600,000. In the cotton trade in this country there were 800,000 persons. Take the average wages in 1840 at 12s. 6d. per week, and their income would be £26,000,000; add one-fifth for increase of population and wages, and the income would now be £31,200,000. On an average these people spent one day a week in voluntary idleness, and this threw away £5,200,000. Bricklayers wasted £500,000 a year in the same way. Let working men substitute industry for idleness and they would soon have the means of supporting charitable institutions. They should support them because they were the principal recipients of the bounty, and because they could do so if they chose to be sober instead of drunken, and industrious instead of idle.

## NOTICES TO CORRESPONDENTS.

MR. ALEXANDER LANE.—In our next.

DR. PAVY is thanked.

IGNOBAMUS.—Another name for potasse carbonas. It is obtained by treating ordinary commercial pearlash with its own weight of distilled water and evaporating the solution so formed to dryness. Dose, 10 to 30 grs. 2. We cannot find the person named in either the "Medical Register" or "Directory."

MR. HUTCHINSON.—The address has been filled in, and the note sent to Dr. R.

DR. BELL TAYLOR's letter is unavoidably held over to our next.

#### MEDICAL ETHICS.

—"Quis custodiet ipsos Custodes?"

Juv. VI., 347.

SOME years since the daughters of one of our most distinguished orators and dramatists were denominated the three graces, being respectively all grace, graceless, and disgrace. Of the three blank graces—Divinity, Law, and Physic—it is not difficult to guess to which category Physic may be assigned. The everlasting cry of the "dignity of the profession" indicates the necessity of its members sounding their own trumpets with peans in celebration of "honour" and "etiquette," lest the public should penetrate the almost diaphanous artifices adopted to achieve individual popularity. As a culmination, on June 16th, 1873, the following circular emanated from the Royal College of Physicians, London :—

"DEAR SIR,—I have the honour to forward the subjoined resolutions, which were adopted at a general meeting of the College held on the 9th inst. :—

"I.—That the practice of medical authors frequently advertising their own works in the non-medical journals, and especially with the addition of laudatory extracts from reviews, is not only derogatory to the authors themselves, but is also injurious to the higher interests of the profession.

"II.—That the above resolution be communicated to the President of the Royal College of Surgeons, and to every Fellow and Member of this College.

"I have the honour to be, dear Sir,

"Yours faithfully,

"HENRY A. PITMAN, Registrar."

This remarkable remonstrance against the practice of advertising medical works in the public journals was singularly stultifying on the part of the general meeting, i.e., of the *Fellows* of the College, many of whom have scaled the ladder of membership, and ascended through advertising and consequent notoriety to the fellowship election which (to speak sans personality) is influenced in the opinion of numerous distinguished members, by absolutely inscrutable reasons; so much so that two eminent licentiates, originally so-called, Sir James Clark and Dr. Neil Arnott, declined the equivocal elevation. With admirable



VACANCIES.

Royal Free Hospital, London. Senior House Surgeon. Salary, £104 per annum with board and residence. Testimonials and applications to be sent to Mr. J. S. Blyth, at the hospital.

Bridgnorth Infirmary. House Surgeon. Salary, £100 per annum, with furnished apartments. Applications to the Hon. Sec. before the 8th inst.

Nottingham General Hospital. Physician. Honorary. St. Luke's Hospital, London. Clinical Assistant. Board and residence, no salary. Address the Secretary.

Marylebone General Dispensary. Physician. Honorary. Woolwich Union, Kent. Assistant Medical Officer to the new Infirmary at Plumstead. Salary, £80, with board and residence. Applications under cover, to the Clerk to the Board.

Ashton-under-Lyne. House Surgeon to District Infirmary. Salary, £80, with board and residence. Applicants must address Mr. Hugh Mason, Ashton.

Bristol Infirmary. Additional Medical Officer. Salary commencing at £150 per annum. Full particulars of the Secretary.

Gainsborough Union. Medical Officer for the Willingham District, at £70 per annum, fees extra. Also Registrar of births and deaths. Applications to the Clerk of the Board.

Bromyard Union. Medical Officer for District No. 1, at £120; for District No. 2, at £100; and for the Workhouse, at £30 per annum. Mr. Knott, the Clerk, will supply full particulars.

Trinity College, Dublin. Professorship of Chemistry in the School of Physic. Fixed salary, £400 per annum, with other emoluments. (See Advt.)

APPOINTMENTS.

ALLEN, J. B., L.K.Q.C.P.I., Superintendent Medical Officer of Health for the Gorey Rural Sanitary District.

BARRY, G. P., M.D., Superintendent Medical Officer of Health for the Kanturk Rural Sanitary District.

BODKIN, P. J. T., L.K.Q.C.P.I., Superintendent Medical Officer of Health for the Glennasmaddy Rural Sanitary District.

BRADBROW, R., L.K.Q.C.P.I., Superintendent Medical Officer of Health for the Carrick-on-Shannon Rural Sanitary District.

BURKE, J. G., L.K.Q.C.P.I., Superintendent Medical Officer of Health for the Dublin South Rural Sanitary District.

CAMERON, C. A., M.D., Medical Officer of Health and Analyst for the Dublin Urban Sanitary District.

CURRY, J. E., M.D., Superintendent Medical Officer of Health for the Lismore Rural Sanitary District.

GIVEN, G. K., M.D., Superintendent Medical Officer of Health and a Sanitary Officer for the Gortin Rural Sanitary District.

HEPBURN, D., L.D.S.R.C.S.E., Dental House Surgeon to the Dental Hospital of London.

JOHNSTON, A. M.B., Superintendent Medical Officer of Health and a Sanitary Officer for the Westport Rural Sanitary District.

KELLY, J. T., L.R.C.S.I., Superintendent Medical Officer of Health and a Sanitary Officer for the Glenties Rural Sanitary District.

LANGAN, F., L.K.Q.C.P.I., L.R.C.S.I., Medical Officer, &c., for the Shercock Dispensary District of the Baillieborough Union, co. Cavan.

M'DONNELL, C., L.R.C.P.Ed., Superintendent Medical Officer of Health and a Sanitary Officer for the Glm Rural Sanitary District.

Marriages.

BROWN—BROWN.—On the 28th ult., at Eaton Bishop, Hereford, by the Rev. Samuel Clark, M.A., Rector, W. W. Brown, of Falklands, Dorset, to Catharine, widow of I. Baker Brown, F.R.C.S. No cards.

Deaths.

BENT.—On the 23rd Nov., at Aldershot, Surgeon-General John Bent, Army Medical Department, in the 58th year of his age.

CUMMING.—On the 19th Nov., at Glasgow, Wm. Cumming, M.D., of Wigtown, aged 33.

HAYWARD.—On the 19th Nov., Geo. Hayward, M.D., of Ealing, formerly of Leeds.

HUNTINGTON.—On the 15th Nov., F. Huntington, F.R.C.S.E., of Hull.

MARTIN.—On the 27th Nov., at 37 Upper Brook Street, Sir J. Randall Martin, C.B., F.R.S., aged 81.

MITCHELL.—On the 15th Nov., at Pentney Vicarage, Norfolk, Thos. Robinson Mitchell, M.D., of Jarrold-on-Tyne, aged 58.

RAYNER.—On the 9th Nov., A. P. Rayner, M.R.C.S.E., of Shawbury, Salop.

SEYMOUR.—On the 21st Nov., at Surbiton, Maria, widow of Edward James Seymour, M.D., F.R.S., in her 78th year.

STEVENS.—On the 5th Nov., J. N. Stevens, M.R.C.S.E., of Princess Place, Plymouth, aged 63.

Advertisements.

SOCIETY for RELIEF of WIDOWS and ORPHANS of MEDICAL MEN.—Founded 1788.—Incorporated by Royal Charter 1864.—The MEMBERS are reminded that a QUARTERLY COURT of DIRECTORS will be held on the 13th JANUARY, 1875. Candidates for admission into the Society desirous of being balloted for at the Meeting must send their form of proposal to the Secretary on or before December 22. The form of proposal may be obtained of the Secretary. The benefits of the Society are restricted to the families of deceased Members of not less than two years' standing. The Secretary attends at the office every Wednesday and Friday, from 4 to 5 o'clock.

J. B. BLACKETT, Secretary.

53 Berners Street, W., December 2, 1874.

ROYAL FREE HOSPITAL, GRAY'S INN ROAD.—The office of SENIOR HOUSE-SURGEON to this Hospital is now vacant. Candidates must be possessed of a medical or surgical qualification from one or more of the Examining Boards of the United Kingdom, rendering them eligible for registration under the Medical Act. The salary is £104 per annum, with board and residence in the Hospital. The appointment will be made for twelve months only, but the holder will be eligible for re-election. The engagement will be terminable by three months' notice on either side. Preference will be given to a candidate who has had experience in a similar capacity. Candidates are requested to send in their testimonials to the Secretary on or before WEDNESDAY, the 9th DECEMBER, 1874.

JAMES S. BLYTH, Secretary.

MALVERN COLLEGE.

This COLLEGE contains TWO DEPARTMENTS—the CLASSICAL and the MODERN. There is also a Preparatory LOWER SCHOOL.

There are Boarding Houses within the College Grounds, held by the Head Master and others of his Staff; a Gymnasium, &c.

Board and Tuition under 14, £80; over 14, £90. Non-shareholders pay an extra fee of £6. Special advantages for Sons of Clergymen and Home Boarders.

For further information apply to the Rev. ARTHUR FABER, M.A., Head Master, late Fellow and Tutor of New College, Oxford.

The Examination for Scholarships and Exhibitions on December 22nd and 23rd.

TRINITY COLLEGE, DUBLIN.—SCHOOL of PHYSIC IN IRELAND.

Pursuant to the provisions of the School of Physic Act, 40 Geo. III., ch. 24, and Amendment Act, 30 Victoria, ch. 9: Notice is hereby given that the Professorship of Chemistry in the School of Physic became vacant on the 3rd of OCTOBER, 1874; and that on SATURDAY, the 30th JANUARY, 1875, the Provost and Senior Fellows of Trinity College will, at the hour of twelve of the clock (noon), in the Board-room of the said College, proceed to elect a Professor of Chemistry, in the room of Professor James Apjohn, resigned.

The Emoluments and advantages of the Professorship consist of the following items:—

- 1st. A fixed salary of £400 per annum.
- 2nd. An additional payment of £100 per annum, on condition that the Professor shall give free Laboratory instruction to such Senior Sophisters as shall be nominated by the Bursar.
- 3rd. Fees for Lectures and Laboratory Instruction, to be regulated from time to time by the Provost and Senior Fellows.

N. B.—The fees as at present arranged are—  
Medical Lectures (Winter Course) . . . £3 3 0  
Medical Practical Course (Summer) . . . £1 5 0  
Laboratory Course (eight months) . . . £10 10 0

Graduates in Arts, and Students whose names are on the College books, are admitted to the Medical Courses on payment of half the above fees.

- 4th. The Professor shall have the use of the College Laboratory for analyses bearing on Medical Chemistry, and approved by the Provost and Senior Fellows, such as Medical and Medico-legal investigations, and analyses connected with purposes of Public Health.

All Candidates are required to send their names, with the places of their education, the Universities where they have taken their Medical Degree, and the places where they have practised, to the Registrar of Trinity College, Dublin, and the Registrar of the King and Queen's College of Physicians in Ireland, on or before Saturday, the 23rd January, 1875.

Candidates wishing for further information are requested to communicate with the Rev. Dr. HAUGHTON, Medical Registrar, Trinity College Dublin.

ANDREW S. HART, Registrar, T.C.D.  
J. MAGEE FINNY, Registrar, K. & Q.C.P.

DUBLIN INFIRMARY for DISEASES of the EYE and EAR, Ely Place.

Ophthalmic and Aural Surgeon:  
ARCHIBALD HAMILTON JACOB, M.D. Dub., F.R.C.S., Ex-Ophthalmic and Aural Surgeon to the City of Dublin Hospital.

Consulting Physician:  
EVERY KENNEDY, M.D. (Hon. Caus.) T.C.D. and Edin., Fellow and Ex-President King and Queen's College of Physicians.

Consulting Surgeon:  
GEORGE H. PORTER, F.R.C.S.I.; M.Ch. T.C.D. (Hon. Caus.), Surgeon in Ordinary to Her Majesty the Queen in Ireland; Fellow and Ex-President, R.C.S.I.; Senior Surgeon to the Meath Hospital.

Obstetric Physician:  
JOHN CRONYN, M.D., F.R.C.S., Examiner in Midwifery, Roy. Col. Surgeons; Ex-Assistant Physician Rotunda Hospital.

Work, Income, and Expenditure for Twelve Months, ending June 30, 1873.

Annual number of Dispensary patients	...	...	...
Number of visits paid by such patients	...	...	5,847
Number of patients within the Infirmary	...	...	124
Number of operations performed	...	...	163
Total gross expenditure per bed per annum	...	...	£27 15 0
Average expenditure per intern patient	...	...	1 10 6

The Infirmary is wholly dependent on private benefactions, and is in debt to the Medical Officer. SUBSCRIPTIONS ARE EARNESTLY REQUESTED

# The Medical Press & Circular.

"SALUS POPULI SUPREMA LEX."

WEDNESDAY, DECEMBER 9, 1874.

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## Original Communications.

### ON THE SCIENTIFIC AND EMPIRICAL INVESTIGATION OF EPILEPSIES.

By J. HUGHLINGS JACKSON, M.D., F.R.C.P.,

Physician to the Hospital for the Epileptic and Paralyzed, and to the London Hospital.

#### CHAPTER III. (continued).

I WILL now take an example more striking than any. There is, I consider, an essentially similar functional condition of nervous tissue in epileptic mania, in epileptic aphasia, and in epileptic hemiplegia. As I have already, for another purpose, spoken of epileptic mania (Chapter II., page 409), and have at the same time spoken of epileptic hemiplegia, I must speak briefly here. In each of the three there is temporary exhaustion of a nervous tract after, and as the result of, an excessive nervous (i.e., epileptic) discharge. In the first instance that tract consists of processes underlying consciousness in the second of processes of the speech series, and in the third of processes for movements of the limbs, &c. (the corpus striatum). (a)

But clinically, the cases are extremely different, especially the condition of the extremes, that of the epileptic maniac and of the hemiplegic man. It would be absurd to put the man who is raving and the man who is hemiplegic in the same ward for care simply because from a scientific standpoint they are fundamentally alike. They would require different kinds of supervision. It would be absurd also to treat them in the same way; one patient would require

(a) The nomenclature here is confusing. The mania in epileptic mania is not the analogue of the epileptic aphasia or epileptic hemiplegia. There is a duplex condition in each. Loss of consciousness in the epileptic maniac is the analogue of the loss of speech and of the hemiplegia. These are the three negative elements. Now for the three corresponding positive elements. The mania is the positive element in the first. The positive elements in the other two (the analogues of the mania) are conservation of the more automatic factors in language (smiling, laughing, &c.) and conservation of all movements more automatic than those of the face, arm, and leg.

to be put to sleep, the other would not. That each was suffering from an essentially similar morbid functional state (exhaustion of part of his brain, the consequence of a strong nervous discharge) makes no difference for empirical or practical arrangements. It would be as absurd to consider the two cases as alike for practical purposes as it would be for a gardener to put his plants together, not as fruit trees, ornamental shrubs, &c., but according to the division Rosaceæ, Cruciferae, &c. So much for the clinical investigation and arrangement. Now for the other side—for the value of the scientific investigation and classification. I do not see how we are to understand the very complex problem of epileptic mania until we have studied it in relation with the simpler one of epileptic aphasia, and the still simpler one of epileptic hemiplegia. We must make a comparative study of them, and to do this we must reduce the cases to their lowest terms. We must, in other words, classify them on a fundamental basis, as depending on exhaustion of nervous tracts, that is as after-effects of epileptic discharges. It is as justifiable for scientific classification of our cases of disease to underrate superficial differences when we can trace fundamental resemblances as it is for the botanist to put together a lily, a tulip, an onion, and the asparagus plant, or for a zoologist to classify a whale, a bat, a hedgehog, and an elephant as mammals.

I think a good illustration of the two kinds of classification and methods of investigation may be taken from insanity. I have the less hesitation in giving it, as when I come to speak at length on epileptic mania, I shall have to speak generally of insanity. It is a part of my subject, for epileptic mania is acute temporary insanity.

There are very many classifications of Insanity, and this is good evidence of the difficulty in dealing with the complex problems the cases present. For my part, I think we should have Arrangements of Cases of Insanity for practical purposes, and a Classification on some natural system for the purpose of increasing our knowledge of "diseases of the mind." The arrangements, entirely artificial, would only be provisional. They would in asylum practice start with the very general definition of a lunatic as a person who requires restraint on account of mental disorder. The arrangements would vary very widely as the cases were

considered from a pathological or therapeutical point of view, or as the patients required different degrees and kinds of supervision. If a certain kind of insanity were often found along with phthisis, this would be a good reason for making a group "phthisical insanity" for treatment, and also for the accumulation of otherwise unrelated facts bearing on pathology. If the patient were suicidal, there would be very good reason for taking that to be the leading feature of his case for certain practical purposes. Then the grouping epileptic (a) insanity is a very useful one. But for increasing our knowledge of insanity and, indirectly, of mental operations in health, these practical arrangements alone will not suffice. We require also a theoretical arrangement, or rather a classification properly so-called—in fact, a classification on a natural system.

Cases of insanity should, I think, be classified and investigated on the basis supplied by the doctrine of Evolution of nervous centres. We shall have enormous help in the work Spencer has done in his "Psychology." We have already explained that we use the term Dissolution as the opposite of Evolution. Insanity is Dissolution beginning in the highest nervous processes. The highest processes form the anatomical substrata of consciousness. In insanity there is partial or total loss of use of the highest processes, the symptom being loss or "defect" of consciousness. Metaphorically speaking, the disease is of the controlling processes. These are negative statements. There is stated from the positive side, reduction to a more automatic condition of mind, or, physiologically stated, a "lowering of adjustment." (See Chapter II., Part 2, Oct. 21, page 350.) The elements of the duplex condition, dissolution and automatic action, are in inverse proportion. The "shallower" the dissolution, the higher and more special (more nearly normal) is the automatic mental action permitted; the deeper the dissolution, the more general is the automatic action. The ravings, grotesque actions, visual and auditory hallucinations, &c., are due to action of centres which, except for over-excitement from loss of control, are healthy.

The varieties of insanity would be explained (1) by the depth of the reduction or dissolution; (2) by the rapidity of the reduction; (3) by the kind of brain in which the reduction occurs; and (4) by the influence of external circumstances and internal bodily states on the patient who is reduced. These factors will vary in relative amount infinitely. Insanity is a Function of four Variables.

Moreover, of course, what we here call the Scientific Investigation of Insanity is really an experimental investigation of Mind; and in this regard the slightest departures from a person's standard of mental health are to be studied, and not only the cases of patients who require to be kept in asylums; indeed, the slighter cases (e.g., the cocoa-mixing affair—see page 410) are the more important in the scientific investigation. For whilst in studying Evolution we study from the general to the special, it is easiest to study in the reverse way the effects of Dissolution. For example, the more special (the more nearly normal) the mental automatism after an epileptic discharge is, the easier is it understood. The cocoa-mixing automatism is a more valuable experiment on mind than is a case of epileptic mania.

Although for convenience we used above the conventionally correct expression investigation of "diseases of the mind," we mean, of course, as has been also explicitly stated, investigation of those diseases which begin in the highest centres of the nervous system. We have to do with changes in nerve cells and fibres making up sensori-motor processes, which are not mind, but only the substrata of mind. Strictly speaking, it is as erroneous to say that the insane patient has disease of the mind as to say that a

patient the subject of simple and incipient optic atrophy who cannot see red has "disease of colour." It is exceedingly important to get rid of the psychological implication which the convenient expression "disease of the mind" has. Our concern with mind is indirect. Now, in an anatomico-physiological inquiry on the principle of Evolution we do not make any abrupt limit to nervous processes serving in mind. We look on the whole nervous system as made up of processes for the co-ordination of impressions and movements. Why, during the energising of some of the highest and most special of these, mental states arise, we do not inquire. In Dissolution there are all gradations traceable as a consequence of disease (for example, exhaustion after epileptic discharges) beginning in the highest centres, from such slight "depths" of dissolution as those which permitted actions so nearly normal as the cocoa-mixing affair (see p. 410), to dissolution so deep as coma, in which there is no evidence of mentation, and but the most general and most automatic physical action. For, I repeat, in an anatomico-physiological inquiry the question is not the psychological one—Is consciousness displayed? but, How is the organism adjusted to its environment? We have to trace all degrees of defective adjustment corresponding to different depths of dissolution. In the cocoa-mixing affair the adjustment was almost as special as is normal; in mania where the dissolution is deeper it is far more general; and in deepest coma the adjustment is of the most general character compatible with life.

Epileptic mania is acute temporary insanity, but in insanity ordinarily so-called there is clinically an essentially similar double state. There is defect of consciousness analogous to loss of consciousness, and there is slightly increased automatic action analogous to the raving. The difference in degree depends, I believe, on the second Variable (*vide supra*), on the difference in the rapidity with which the dissolution is effected (control removed). Dissolution is effected with extreme rapidity by an epileptic discharge, whereas in insanity ordinarily so-called the morbid process removing or impairing control is usually very slow indeed.

That the insane patient has defect of consciousness cannot, I think, be doubted; for example, in a patient who has illusions or delusions (positive or active element) there is really, I uphold, a negative or passive element—affection of consciousness. The cases are, however, always spoken of from the positive element only. The negative is the more important medically. The patient who has a delusion has it for the same reason that the dreamer has delusions. There is in each loss of ability to correct automatically arising mental states (which are very active) by objective states, because, since the processes serving in the latter are implicated, clear objective states are not possible. Speaking technically, the Judgment is defective. The nervous processes implicated are those which form the anatomical substrata of consciousness, or, otherwise expressed, those by which the organism, as a whole, is adjusted to its environment. There is in insanity a less special, or, otherwise put, more general adjustment. The man who in hospital imagines himself to be at his home has defect of consciousness, and, as a consequence, also lowering of adjustment; his automatically arising states are not corrected by objective states. He is in a dream from which awakening is sometimes not possible. There are degrees from the very slightest and most temporary departures from healthy mental states to dementia, which, so far as it shows implication of processes serving in mind, is the analogue of coma. (a)

It is of much importance to my argument in many parts of this book to show that defect of consciousness is, on its anatomico-physiological side, defective correspondence with the environment. I would refer the reader to the quotation from Spencer in the first Appendix to the last chapter (p. 412). I now give a further quotation from his "Psychology" on what takes place in healthy mentation.

(a) No doubt these degrees are (like increasing degrees of hemiplegia) "compound degrees." The more the special processes are affected, the wider is the implication of the more automatic.

(a) We have, of course, to distinguish betwixt (1) transient mania following an epileptic paroxysm, (2) the more lengthy mental infirmity after a succession of attacks, (3) the persistent deterioration which is a gradual result of seizures often repeated for months and years.



" . . . we pass into the domain of Psychology the moment we inquire how there comes to exist within the organism a relation between *a* and *b* that in some way or other corresponds to the relation between *A* and *B* [in the environment]. Psychology is exclusively concerned with this connection between (*A B*) and (*a b*)—has to investigate its nature, its origin, its meaning, &c.

"A moment's introspection will now make it clear to the reader that he cannot frame any psychological conception without thus looking at internal coexistences and sequences in their adjustments to external co-existences and sequences. If he studies the simplest act of perception, as that of localising a touch in some part of his skin, the indispensable terms of his inquiry are—on the one hand, a thing (1) and a position (2), both of which he regards as objective; and on the other hand a sensation (3), and a state of consciousness constituting his apprehension of position (4), both of which he regards as subjective. Again, to cite an example from the opposite extreme, if he takes for his problem one of his involved sentiments, as that of justice, he cannot represent to himself this sentiment, or give any meaning to its name, without calling to mind actions and relations supposed to exist in the environment; neither this nor any other emotion can be aroused in consciousness even vaguely without positing something beyond consciousness to which it refers. And when, instead of studying Psychology subjectively, he studies it objectively in the acts of other beings, he similarly finds himself incapable of stirring a step without thinking of inner correlations in their references to outer correlations." ("Principles of Psychology," vol. i., p. 133.)

(To be continued.)

## ON THE TREATMENT OF FISTULOUS SINUSES BY MEANS OF THE ELASTIC LIGATURE. (*a*)

By W. ALLINGHAM, F.R.C.S.,  
Surgeon to St. Mark's Hospital, &c., &c.

(Continued from page 482.)

THE elastic ligature is sometimes very advantageous as a supplement to the knife—for example, it is not uncommon to find, after laying open a comparatively superficial sinus, that from the floor of this sinus another one runs deeply, even beneath the internal sphincter up the bowel to a greater or less distance. To secure the patient's recovery it is absolutely necessary to lay this deep sinus freely open, and in doing this you may sometimes get severe hæmorrhage, which will give more or less trouble both to the surgeon and the patient. Here the elastic ligature comes in most usefully. Lay every sinus that is superficial open with the knife, and then pass a ligature through the deep sinus, and this is thus dealt with in a most satisfactory manner. In a very extensive fistula in a gentleman of phthisical tendency, a patient of Dr. Corbett Blades, of Kennington, upon whom I operated for Dr. Blades in July last, after laying open several long but superficial sinuses, I found two deep burrowings under the internal sphincter on both sides of the bowel. These passed up at least three inches. Feeling confident that in laying these open I should expose the patient to a considerable loss of blood, and considering his weak delicate state, I at once determined to apply elastic ligatures, and did so. The result has been all that one could have wished, and much more than could have been expected: the ligatures cut their way out in about nine days; the pain was not great; no secondary abscess formed; there was no further burrowing; and when I saw the patient, some short time back, he was greatly improved in health, had become quite stout, and the fistulæ were all soundly healed. A very

satisfactory fact also is, that although such large and free divisions of both sphincter muscles on both sides of the rectum had been made, he retains good control over his motions, and even over flatus.

In a very recent case operated upon by me in the practice of Dr. Elliot, of Denmark Hill, I used the ligature under precisely similar conditions, and with good result. Unless the patient be very much more than usually nervous, no anæsthetic need be given, and even if you cannot dispense with it entirely, a whiff of nitrous oxide will suffice, as in a favourable case the operation can be accomplished in something under ten seconds. No man is more alive to the value of anæsthetics than I am, nor more grateful to their discoverers; but I am always happier when able to dispense with them. You can truly assure your patient that the introduction of the elastic ligature through the fistula is almost painless, and, further, if you explain and show an intelligent person the *modus operandi*, you are almost certain to at once command confidence, and consequently submission to your wishes. It may be a ridiculous weakness, but the vast majority of human beings have a horror of the knife and so-called cutting operations, consequently, they are at once reassured when they learn that knives can be dispensed with, and I have now cured several patients of fistulæ who absolutely had determined not to submit to any "cutting operation," and who would have gone on possibly from bad to worse until health was undermined and eventually a very severe operation rendered absolutely indispensable, where a slight one earlier performed would have led to a cure.

In operations with the elastic ligature there is always an exceedingly small amount of supuration—much less pus proceeds from the wound than when it is made with the knife; few things have surprised me more than this in watching my cases. Until the ligature comes away there is scarcely more than a drop of pus to be seen. The wound granulates, contracts, and fills up in every way as the ligature passes through; for example—having carefully measured a sinus and found it 3½ inches in length, with an estimated depth of ¾ of an inch to an inch, when the ligature separated on the eighth day the wound left measured 1½ inch in length, and the depth was less than a ¼ inch. On the 18th day after the ligature had been put in the wound was soundly cicatrised throughout. An equally favourable result, I think I may safely say, considering the extent of the wound, I never saw follow the knife. I have said that in my opinion the india-rubber ligature does not so much cut as compress, so that when it comes away a portion of the roof of a sinus separates with it; thus the wound gapes, and the result is, a comparatively broad and shallow wound is left, which soon fills up and skins over. This is very desirable in fistula in ano, as you do not get any over-hanging edges, which fall into the wound, retain pus, prevent healing, and tend to cause burrowing. Thus, in operating with the knife on a fistula, if you only make a clean cut through its roof, you will often find that you have left a deepish wound with undermined edges. If you leave it in this condition it will be very long in healing, as it will be liable to unite instead of filling up from the bottom. You will have constantly to watch it, and put lint or wool into it to obviate this, and the constant dressing will be neither satisfactory to yourself nor your patient. Thus, in days gone by, you were always directed to stuff a fistula with oiled lint, and the frequent thrusting in of this lint greatly delayed, and often totally prevented cicatrization. When I operate with the knife in such a case, I most usually (and always when the edges are thin and flapping) remove both the edges, so as at once to form a broad and comparatively shallow wound. Thus, cicatrization immediately commences at the edges, and as the part is filling up by granulation, the skin creeps over the surface, and much time is saved. Such a wound requires scarcely any dressing, and certainly no stuffing with lint. Now, this is exactly what the ligature accomplishes, and I consider it no small advantage.

(a) Read before the Medical Society of London, November 2nd, 1874.

I will now give very briefly the notes of twenty of my hospital cases, taken without any selection, to exhibit the general character of their behaviour after the ligature, and make only such observations upon them as may appear quite needful.

CASE I.—Julia P., æt. 37. Complete fistula; operation January 12; ligature separated 8th day; very slight pain; cured in fourteen days.

CASE II.—Caroline C., æt. 32. Complete fistula; operation February 2; ligature came away 9th day (two hæmorrhoids were also ligatured); very little pain; cured in sixteen days.

CASE III.—Wm. S., æt. 23. Blind internal fistula; phthisical subject; two ligatures used; operation Feb. 28; ligatures came away the 7th day; went out well in eighteen days; much improved in general health.

CASE IV.—Wm. R., æt. 53. Blind external fistula; very deep and long sinus; operation March 16. The ligature required tightening on the 7th day, and came away on the 10th day. He had a good deal of pain after the tightening of the ligature. Discharged cured in twenty-six days.

CASE V.—Daniel C., æt. 47. Complete fistula; operation March 9; ligature came away 11th day; discharged cured in twenty-two days. He was a very delicate man, with a systolic bruit, having had rheumatic fever; suffered absolutely no pain; did not keep his bed at all.

CASE VI.—Abraham C., æt. 39. A deep and long complete fistula, commencing  $2\frac{1}{2}$  inches from the anus; the internal opening between the two sphincters; operation May 4; ligature separated on the 7th day. This man had a good deal of pain. He left the hospital at his own request twelve days after the operation, the wound then being no larger than a split horse-bean. This was a result far surpassing anything I ever saw from an operation with the knife.

CASE VII.—David A., æt. 52. Complete perineal fistula; operation April 25; ligature came away in eight days; cured in fourteen days; had no pain, and never kept his bed.

CASE VIII.—Lucy C., æt. 39. Blind external fistula; operation May 4; ligature came away in four days; had no pain; cured in twenty-six days.

CASE IX.—Henry O., æt. 27. Blind external fistula; operation May 11; not noted when the ligature separated. This sinus ran a long way up the bowel; he had absolutely no pain; discharged cured in fourteen days.

CASE X.—Fanny D., æt. 21. Double fistula. Two external and two internal openings on opposite sides of the bowel; operation June 1; ligature came away on 5th and 6th days; suffered a great deal of pain for several days. She was a weak hysterical woman; but I do not doubt her statement as to her having much pain. Poultries and morphia hypodermically administered relieved her; discharged cured in twenty-three days.

CASE XI.—Wm. C., æt. 30. Complete fistula; length of sinus  $3\frac{1}{2}$  inches; operation June 8; ligature came away in eleven days; good deal of pain the first night, but slept without an opiate; cured in twenty-two days.

CASE XII.—Elix. G., æt. 35. Complete perineal fistula running far into the labium (the labial sinus was laid open with the knife); operation on fistula with ligature March 23; the ligature came away on the 9th day; cured in thirty-four days. No pain after the operation for two days; but then she had great pain, and an abscess was discovered on the other side of the anus. This was at once opened, and it filled up without any further trouble.

CASE XIII.—George G., æt. 44. Very deep perineal fistula; operation May 4; ligature came away in ten days; had pain and retention of urine; cured in forty-five days. He was a very weak, delicate man, with a bad cough and phthisical tendency.

CASE XIV.—Christopher C., æt. 44. Complicated fistula; superficial sinus laid open with the knife; very deep one by the ligature; operation June 22; ligature separated 7th day; cured in twenty-three days.

CASE XV.—Henry S., æt. 24. Complete fistula; operation June 22; ligature came away in seven days. Had an impaction of fæces, which necessitated mechanical removal, causing him for the time great pain; discharged well in eighteen days.

CASE XVI.—George D., æt. 52. Complete dorsal fistula; operation Sept. 28; ligature came away 7th day; no pain. This was a very long sinus. He was discharged well in fourteen days.

CASE XVII.—Wm. B., æt. 52. Complete fistula; operation Oct. 5; ligature came away in nine days; had for two days a good deal of pain, but not enough to keep him awake at night, although he had no sedative. Cured in nineteen days.

CASE XVIII.—Jas. F., æt. 32. Blind external fistula; very thick bridge of skin; operation Jan. 19; ligature separated in five days; absolutely no pain; cured in twenty-three days.

CASE XIX.—Henry J., æt. 54. Complete fistula; operation Jan. 19; ligature cut through in six days; no suffering; quite well in fifteen days.

(To be continued.)

## INDIAN MEDICAL NOTES.—No. XXX.

MEERUT, November, 1874.

(FROM OUR SPECIAL CORRESPONDENT.)

SAHARUNPORE.

THERE'S some excuse for trifling with the pen to-day between the hospital visits, to wonder what remedies were used for gout in former days by Horace, Virgil, Ovid, Juvenal, Colley, Cibber, Congrieve, Fielding, Cowper, Sidney Smith. The Prince of Parma took the field in slippers; Pitt electrified the House of Commons; Lord Palmerston smiled away difficulties; and some say Kean, who ate boiled mutton for lovers', and pork for tragedy parts, fretted his little hour on the stage tortured by gout. Queen Anne, who hunted and lived far too generously, grew fat and gouty, and, when taken ill, sent for Radcliff, who, having gout himself, could not attend. Some said the Queen had ague, others diagnosed inflammatory fevers—tertiary postponed—or gout in the stomach; the symptoms, including palpitation, dyspnoea, vomiting, pain in the thigh, the fever somewhat influenced by bark, remitting in thirty-nine hours; erysipelas threatening, mortification followed, and though the patient enjoyed solid food, such as chicken, the end by coma soon followed. In the jog-trot humble walk of daily life many a medical man, in breaking health and broken spirits, can smile and wear the cheerful mask wonderfully pleasantly amid scenes depressing, and thus combat disease where others fail. We are told of the grand old Indian doctors who enjoyed none of the cooling appliances or modern comforts of to-day; some grew rich; others, such as Simon Nicholson, did not, though his practice and reputation left him no rest; at the bedside there was a healing power in his very presence, his kindness of heart, his indescribable manner: and when this bright, cheerful, and talented physician entered into the chamber of sorrow and suffering the terrors of sickness all but vanished. On the other hand, Akenside, so sweet, so gentle on paper, was a cantankerous crabbed physician in his hospital in London, disliked by the patients. Last year about 1,185 soldiers took to gardening, the number in 1872 being 572, showing increasing interest in the cultivation of fruits, flowers, and vegetables, a matter of the greatest medical importance in connection with the feeding of troops in India, where good meat may not be procurable, where cheap animal food is worse than none sometimes, and where good vegetables are so urgently re-

quired towards repairing the exhausting waste of fever. Turnips, carrots, parsnips may be woody, fibrous, the flavour of peas and onions very faint, yet the salads of mustard and cress, beetroot, cucumber, tomatoes, and native vegetables at Meerut are certainly appetising in the extreme. It is a matter of opinion whether the rearing of lovely flowers or graceful shrubs be healthy or not; the turning over of soil may induce fever, perhaps dysentery, which, extending to the liver, may there excite pyæmia, points constituting multiple abscesses, which no chloride of ammonium or pneumatic aspiration can relieve, for the liver may be riddled; and thankful I was the other that when the aspirator was out of repair, when the dead-house secrets afterwards were disclosed. No one can lay down any law of limitation of latent virulence in soils; for instance, a century after the plague at Eyam, some labourers, digging potatoes, caught and started malignant typhus, and in France, Germany, India, similar strange tales are told. Fevers puzzling, wasting, dangerous, intractable, leading to organic mischief; diarrhoea, dysentery, hepatitis, include the work just now. My commanding officer laid up with gout, requiring colchicum, iodide of potassium, podophyllin, citrate of lithia, iron, and quinine. My little apothecary, clever, reliable, ever at his post, is down with double pneumonia, often fatal to Eurasians. Every servant ill with ague, requiring money, brandy, opium, quinine; no work is done; the house and horses must go slide. There are better times in prospect. Eventually it is hoped that the cruel spectre malaria will be driven into the next parish, and the good old days revived when people fled from sickness and pestilence to Meerut. When the wind is in the east in sickly September or October it is easy to run off for a few hours by the railway and return refreshed to hopefully encounter work, however depressing. After the evening visit I can readily take up my bed and drive to Meerut Station, take the train to Saharanpore, sup at the station, sleep in the rest-house, arise early next day, spend a few hours in the Botanical Gardens, adjoining almost, and return by morning, or, if I can afford the time, the evening train to Meerut. These gardens, alluded to when Landour was visited, formerly belonged to a native prince, who, seventy years ago, started the place, now extending over 200 acres. The visitor familiar with Chiswick, Kew, and the Regent's Park, the Horticultural Gardens, the Crystal Palace grounds, and flower-shows generally, must make allowances for heat and climate, the chances are, Balaam fashion, he will return pleased, will bless instead of curse the place, which I found most enjoyable in the early morning, when the grass was wet with dew, the birds and insects singing and buzzing so merrily, some of the flowers still asleep—for instance, the twelve varieties of gorgeous, glorious passion-flowers; others, for instance, the great white mushroom-looking blossoms of the moon-flowers, which had an "up all night at a midwifery case" appearance, were jaded and worn; others, such as spomeas, red and white, resembling jasmín; the red, the white, the variegated convolvuluses never looked more lovely, especially the jalap, a gay dandy, who had entirely sunk all acquaintance with calomel and scammony; of the twenty-seven varieties of roses, the King's Acre and the gloire de Dijon do the best; of the geraniums, the scarlet single and Tom Thumb are most hardy, but will only live five years, compared to twenty at home; likewise the fuchsia lives only ten instead of thirty years. From March to September the young tender plants are sent with the greatest benefit to the Hills, but, just as with men, the changes of climate do not universally benefit the old, indeed, may do harm. Dwelling too long on a congenial theme, although neither oaks, bays, or laurels are here, time and space will not permit even to enumerate the treasures of Saharanpore; so let us hurry on along the avenues, just glancing at acacias, cypresses, palms, yuccas, tamarinds, teak, chestnut, mahogany, india-rubber, the logwood for diarrhoea, croton for constipation, eucalyptus globulus with camphor-smelling leaves—the antidote for malaria if it would only grow where required, so far a matter of impossibility that even

the specimens here so carefully tended are but poor. One tree cuts like under-done beef—I forget the name and also the specimen in the spacious museum, there being no catalogue. Thousands of dried plants in paper, fossils of fish, flesh, fowl, and probably of medical practitioners, discovered in the Sewaliks, just as in the museum at Roorkee, elsewhere described; specimens of henbane, attees, kamela, curious fir-cones, shells found in kunkur, also rock crystal, green and blue malachite, asbestos, and that curious sandstone which bends and gives like india-rubber; but it was a sin to pore over old bones in stone when the sweetly-scented flowers of all colours were arrayed in review order, the smartest outside, awaiting inspection. Sir John Lubbock should have been here. The creepers are very grand. A water-lily-like, feathery jasmín, the *Valans Indica*, is curiously beautiful. There are forty acres of Rhæa running to waste until the great secret is discovered how to separate the glutinous matter. There are scented flowers, leaves, and shrubs, also vegetables, besides an experimental farm, worth visiting. The natives, wonderful herbalists, know a great deal more than we give them credit for on this as on other subjects, and on certain days they troop in to worship certain flowers—the *Jasminum mogrum*, a special favourite. The sacred monkeys, to kill which would be sacrilege, give constant trouble, grubbing up seeds, rooting up plants out of mischievous curiosity. Dr. Jameson knew all these tall trees when they were that high, when babies, in fact, were absent; but Mr. Nesbit most kindly acted as cicerone. The water comes in minute arteries from the canal, without creating fever amongst the 200 native gardeners supervised by Europeans. Since draining has been properly done by Mr. Howe, who is surveying Meerut to-day, the station of Saharanpore has become wonderfully healthy, and the clever native doctor at the dispensary told me that the type of fever was far milder—quotidian, quartan ague, bronchitis, pneumonia, dysentery, tape-worm, syphilis the fashionable ailments. Drs. Garden and Smith appear to be great lithotomists, the calculi of fair size, mostly urates. Near the railway station are new quarters, occupied by fifteen families; also, at a little distance, by thirty bachelors, employed as engine-drivers, guards, and what not, who drink water from the wells without filtration, and are innocent of the earth system, the collected excreta of the day carted off and buried—these quarters somewhat resembling those for married soldiers in England, very commodious, are rented at 12s. a room per month. They buy food in the bazaar, excepting bread, baked at Meerut, and the general appearance of the little community is healthy in the extreme. A strong, hearty, jovial engine-driver, smoking a churchwarden, invited me into his neat abode, where his pleasant, buxom wife, and five neat plump—yes, plump little girls, appeared very comfortable. The editor does not hold himself identified with the views expressed by contributors all the world over, so I merely tell you what the engine-driver told me: for instance, that constant employment was the secret of health; sometimes fourteen hours on duty, no regular meals, he, a six months' teetotaler, could go 130 miles without food, calculating eight hours to the 100 miles, and during the famine pressure men had earned £30 a month by working overtime. Blazing sun, hot winds, dust-worms, drenching rains he did not mind; the early cold of the morning tries the strongest. A man who drinks is found out—discharged, which literally means starvation, *ergo*, he remains sober, saving health, pocket, and position. There are inducements to invest, opportunities of leave—seldom cared for, the work very simple, single lines, occasionally accidents through stupid pointamen, the stoppages at stations in May and June very oppressive compared to the relief of rushing through the burning air. No muscular fatigue, no idle hours, aggregation in barracks, loitering about, guards, sentries, or bazaar lounging—no comparison can be made with the soldier's existence. The worthy driver, fifteen years in India, swears by the country, the wife is never dull, and the children, barring whooping-cough, have done well, their

education the difficulty. Engine-driving under a blazing Indian sun can scarcely be termed occupation for women, so we trust the five little girls will eventually marry to make other engine-drivers, guards, and railway officials, generally comfortable in that little nest called home.

Before laying down the pen and paying a third visit to the crowded hospital, just a word about causes affecting fever. Place a long barrack on the flat plain of sand and clay where gradually canals have stopped the natural drainage, raised the water-level, constituting a water-logged district; to the right, at some distance, place a native grave-yard; to the left, the plain, a sheet of water after the rains; near one end of the barrack, a bazaar, a tank—a swamp at certain seasons, the cuts in the earth leading to the regular drain, passing through phases of miniature canals, then mud, which will gradually dry in the sun; at the other end of the barrack, at some distance, place tabies, native lines, tanks again, and beyond these, at a fair distance, the filth-pits. The south-east wind, of all others, will blow pestilent vapours, and should the barrack have single verandahs, and be divided into partitions not permitting free perfilation of air along and across, the want of ventilation will tell at certain seasons when the men have been enfeebled by previous heat. My idea of a model barrack is single storey, raised, flagged floor, thatched roof, double verandahs, or even temporary supplementary verandahs of thick mud and straw, ventilators beyond the men's reach. There are myriads of other points for consideration, for instance, for the first three years every thing should be sacrificed to the acclimatization of the men, who, ignorant of the country, language, customs, dangers, should be placed near other troops, to learn their ways, instead of being detached or at a distance, there blundering and being imposed upon by natives. Officers may have to live at a distance, and the old responsible non-commissioned officers are in their married quarters, whilst the barracks are in charge of the younger ones, equally bewildered with the youngest recruit. There are thousands of things to learn at every hour of the day, and gradually, if the climate be always considered as affected by drainage, air, food, water supply, clothing, duties, the weakly lads may grow into splendid soldiers, such as are met with amongst the acclimatized men at Meerut, some careful, others tough old customers—thirsty souls. Epidemics may pass on unless they are welcomed, or the physician may, Canute fashion, be splashed by the waves. As said before, we are gradually getting to know all about India, every department bent on improvements, oft retarded by climatic influences. Medical men have professional joys and professional sorrows, always praying for the time when in their hands there may be good success.

## Hospital Reports.

### CASES OF CHRONIC MERCURIAL POISONING FROM THE USE OF PINK AND RED VULCANITE IN ARTIFICIAL GUMS, WITH REMARKS AND EXPERIMENTS.

By W. BATHURST WOODMAN, M.D.,

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As the red sulphide of mercury is one of the oldest preparations of that metal, as it is extensively used in the arts, and has been employed in medicine from a very remote antiquity, it is not surprising that its poisonous properties have long been familiar to medical men. My own attention was drawn to the subject by the actual occurrence of cases in patients coming under my care some ten or twelve years ago. I could find no other explanation of their symptoms, except that they were wearing artificial

gums, or artificial palates coloured with vermilion. I had never then heard that the same facts have been noticed by others, and the experiments then undertaken, and since repeated, were made in complete ignorance of the labours of others on the same subject. In the last edition of Dr. Taylor's great work on "Medical Jurisprudence," vol. i., p. 290, he states, under the heading of "Cinnabar Vermilion—Persulphide of Mercury," that Dr. Sutro published a case in the *Medical Times*, September 27, 1845, p. 17, of poisoning by the vapour of vermilion applied externally.

"A woman, by the advice of a quack, applied the vapour to a cancerous breast. She employed three drachms of vermilion, and covered herself with a sheet, so that the vapour should only reach the body externally. After three fumigations she suffered from severe salivation, and violent fever, which continued for four weeks. The right arm became œdematous." A few lines above, he says: "It (cinnabar) is also improperly applied by some dentists as a colouring matter to vulcanised rubber for mounting artificial teeth. Although this insoluble compound of mercury cannot be regarded as an active irritant poison in the stomach, the placing of it in such a situation that it should always be in contact with the mucous fluids of the mouth is liable to lead to the usual consequences of chronic poisoning by mercury.

In May 1864, a medical man consulted me under the following circumstances: Upon the recommendation of a dentist, he had worn this red composition as a frame for false teeth in place of gold. After some time he perceived a metallic taste in his mouth, the gums became inflamed and ulcerated, there was great weakness and want of nervous power, with pains in the loins, and an eruption on the legs. When the composition was removed, these symptoms abated. [The italics are mine.—W. B. W.] I examined the substance, and found in it a great quantity of vermilion; it had been mixed with the sulphur and rubber to give the appearance of the red colour of the gums.

Dr. Wells, of Reading, has directed the attention of professional men to accidents of this nature. A patient of his who had been provided with a frame of this description for the upper and lower jaws, perceived, soon after wearing it, a metallic taste in his mouth; his health failed, he lost his appetite, and became emaciated; he suffered from flatulency, foetid breath, and looseness of the bowels; his pulse was 100, and weak, and his tongue coated with a white film. This gentleman was peculiarly sensitive to the action of mercury. He left off wearing the teeth, and became gradually better and stronger." (*British Medical Journal*, September 5th, 1863, p. 366).

Dr. Taylor goes on to state that vermilion, or the organic compounds containing it, may be entirely decomposed by nitro-hydrochloric acid. The residue, evaporated to dryness, contains corrosive sublimate. This may be treated with water, ether, &c., and the usual tests applied.

It might almost be inferred from Dr. Taylor's statements that only dentists of an inferior class use or recommend these natural-tinted rubbers, or vulcanite, and that the basis, thus tinted, was always the same. I found, however, on inquiring carefully, that very large quantities of this material were manufactured, and that in past years at least, dentists of the highest respectability, and in various parts of this kingdom, as well as on the Continent, had supplied their patients with this *matériel vraisemblant*. It is not always vulcanite. I had specimens of various depths of tint, from varying proportions of vermilion; and of varying hardness, some of the cheaper kinds being simply blanched gutta-percha incorporated with cinnabar. I have to thank Dr. Martin G. Payne, F.C.S., for several specimens obtained by him for me, others were given me by friends, and some I bought. The result of my examination and experiments is as follows:—

1st. All the pink and red artificial gums, palates, and materials for the same which have been examined by me contained vermilion. It is well to state this, as several dentists have questioned the fact, and others seemed surprised. Some of my medical and chemical friends have

suggested that preparations of lead, chromium, and other pigments would probably be found in some. I can only say no such specimens have yet reached me.

2nd. The quantity of vermilion present was not always proportionate to the depth of tint. Some of the most beautiful and natural specimens contained the pigment rather in a state of very fine division than in any great quantity.

3rd. Does the warmth of the mouth, and the action of the saliva, or of articles of food, actually produce volatilisation or solution of the pigment? As the temperature of the mouth seldom exceeds 37° or 38° centigrade, and saliva is a very dilute solution of the saline substances it contains, the possibility of both these methods of possible injury has been questioned. I believe, however, that poisoning occurs in both ways, and possibly by a third method—viz., by conveyance to the stomach, along with the food ingested, of minute particles worn off in the process of mastication. As regards the first method, or volatilisation, I have satisfied myself by delicate methods of analysis that nearly all the mercurial compounds are somewhat volatile at lower temperatures than 98° or 100° Fahr.

It may be remarked parenthetically that lead, arsenic, and numerous other bodies, in forms not usually deemed volatile, are so in a slight degree, as proved by continuous observation at ordinary temperatures, a fact well-known to chemists. But the prepared rubber, or tinted vulcanite, slowly gives up its mercury (which is only mechanically mixed with it), both to saliva and to an artificial solution made to imitate it with common salt, sulpho-cyanide of potassium, &c., at 60° Fahr., and more quickly if the solution be kept at 100° Fahr., and the metal can be easily detected by electrolysis, as well as by other tests. This solution may be hastened by agitation. Solutions of several of the haloid salts have similar solvent properties. If any one repeats my experiments, he must be content to keep the saliva or other fluid in contact with the rubber for several days. To test for the cinnabar, if our object be to rapidly prove the presence of the metallic pigment, the rubber or vulcanite should be finely sliced, put into nitromuriatic acid with a little distilled water, and exposed to the heat of a sand or water bath.

4th. It will probably be objected, that although this solution goes on slowly, yet the constant washing of the artificial gum or palate would really prevent the occurrence of mischief in the human body. As this is simply a theoretical objection, it seems best answered by narrating three or four out of about a dozen cases observed by me from the year 1862 up to last year, 1873. As in the cases quoted by Dr. Taylor, it will be seen that, once rid of the corpus delicti, the red gum, not of Australia nor of the nursery, but of the dentists, the patients rapidly recovered. "*Tollitur effectus, sublatâ causâ.*"

5th. It is to be noted that the saliva and urine in some of these cases contained minute but unmistakable traces of mercury, every possible precaution being taken to avoid known and probable sources of fallacy.

CASE I.—*Ptyalism, Rupoid Eruptions, Cancroid Sores of the Mouth, and Mercurial Erythism in a Patient of the Torbay Infirmary.*—In the year 1862, a poor woman, living in Torre, æt. 50, consulted me on the state of her mouth. She was profusely salivated; the few teeth she had left were all loosened; there were sores of a deep, ragged, and spongy character in the cheek and gums, like cancrum oris; her breath was extremely fetid, and she had rupoid sores on the body, a general condition of fever, muscular weakness, and general irritability. There was also diarrhoea of a dysenteric kind. In her case there had been previous symptoms of constitutional syphilis, and as she had been under quasi-medical treatment, I suspected that she had been purposely salivated. Indeed, I did not know that she was then wearing a plate of red vulcanite, because she always took it out before coming to see me, and indeed, could not wear it when she first came. It was only when similar symptoms recurred some twice or at intervals of six weeks or two months after recovery,

that I began to suspect some chronic and perennial source of mercurial poisoning, and at last discovered the fact of her wearing a vulcanite gum, supporting seven or eight teeth, which had been given her by some charitable ladies, on account of her speech being so defective. This gum, when examined, proved to contain a very large admixture of red sulphide of mercury. This case had, however, almost escaped my memory when case No. 2 occurred.

CASE II.—*Mercurial Eczema and Erythism in a previously healthy Woman.*—Mrs. F— came to the London Hospital in 1864, and was seen by me during the holiday of one of the assistant-physicians. Unfortunately, I have omitted in my notes to state whose case this really was. She presented a most typical, but pitiable picture, of almost general eczema, of the kind generally known as rubrum. Where there was as yet no discharge, there was intense redness of the skin, and minute papules. Her age was about 40; the catamenia regular. Her general health had been good, in fact, till about three months before, she "had never known a day's illness." Now her condition was sad in the extreme; there were muscular tremors, swollen and ulcerated gums, the breath extremely fetid, and profuse salivation. She was feverish, excitable, and owing to want of sleep, the irritation of the skin, and perhaps some special toxic effect, her mental condition closely bordered upon insanity. Those who have watched cases of poisoning by the methyl compounds of mercury will know why I make this special reservation as to peculiar toxic effects upon the cerebrum. She was wearing a plate of red gum with some five or six teeth in the front of the mouth, to replace the incisors, &c., of the upper set, which she had lost from accident many years before. Asked how long it was since she had been quite well, she replied, "Not since I had my new teeth." This was simply a chronological method, as she had not the least idea of the "plate" being the cause of her symptoms. This "gum" was longer than usual, in fact, it fitted nearly the whole of the roof of the mouth, presenting some four or five square inches of surface at the least. This time, however, it attracted no suspicion. Its use was left off for a time, simply because the mouth was so bad. Admitted to the hospital, she soon got well, with baths, gargles, chlorate of potash, and soothing local treatment. About six weeks after she relapsed into a condition nearly as bad as her former one. This time the resemblance of her symptoms to mercurial poisoning attracted more attention, as the most careful inquiry failed to show any other possible source of poisoning than the "teeth-plate" in question. She had taken no medicine—used no doubtful cosmetics—been exposed to no danger from any manufacture. In short, no reasonable doubt could be entertained as to the cause being some mercurial, for mercury was detected in her saliva, and also in the urine passed by her. The plate was then examined, and found to contain vermilion in large quantity.

It may appear strange that after these two cases, both of which were cured, I believe permanently, by leaving off the use of their new teeth, my attention should not have been more directed to this source of danger. The explanation is simple. Hundreds of people were wearing these plates, and the peculiar symptoms were noted only in one or two. Mercury enters so largely also into popular pharmacy that one often suspected "vegetable" or "antibilious" pills, rather than a cause much nearer home. In the year 1867, two or three similar cases came under my notice in Hampshire, and I could not fail to be struck with the fact that all were wearing these red or pink gums, and that in all the cases there was a sort of chronological sequence between the acquisition of the new teeth and the occurrence of the symptoms. In 1868 and 1869, one or two other cases occurred, but I cannot say that any one of them, taken singly, would have carried conviction to my mind. I know of no special character of "mercurial" foster, and eminent surgeons whom I

have consulted agree with me, that except from other symptoms, from the history of the case, or from discovering mercury in the saliva, urine, or other secretions, there is no pathognomonic character in either mercurial salivation or its factor. Yet my attention was now aroused. I began to collect "red gum material," to make experiments, and to look out for cases. It was not long before one occurred amongst my own acquaintance.

CASE III.—*Salivation, Diarrhœa, &c., in an Aged Lady.*—I was consulted for some apparently anomalous symptoms occurring in an old lady previously of wonderful health and vigour, although closely approaching her 80th year. The house in which she lived was well-built, on high ground, in a healthy situation, and careful inquiry failed to discover anything in her mode of life, or her surroundings, or her past history, to throw light upon her symptoms. She had become irritable, feverish, wakeful at night, tremulous, weak, and utterly prostrate, without any obvious cause. Yet her intellectual faculties were clear enough. There was no kidney disease—no evidences of arterial lesions—no known cause for the mental perturbation or bodily malaise. At the same time, she began to be salivated, to have a coppery taste in the mouth, her palate and gums got sore, there was troublesome diarrhœa, and other unpleasant symptoms. On examination I found she was wearing a large plate of pink vulcanite with teeth imbedded in it, these teeth being of a very good artificial compound, chiefly consisting of silica. The symptoms were at once relieved, and lastly cured, by leaving off this plate and getting a gold one instead. She now enjoys excellent health, considering the advanced age she has reached.

Some still more striking cases presented themselves in the years 1870-1-2, two of which, at the risk of being thought tedious, I will relate.

CASE IV.—*Hydrargyria in a Young and previously Healthy Woman.*—M. P—, æt. 18, was brought to me suffering from ulcerated mouth, salivation, tremor of the limbs, hysterical symptoms, and a sort of lichen-eczema, not so unlike grocers' itch except for its brighter colour and more intense character. She had been a fine healthy girl, quite regular, quite free from nervousness or hysteria, and came of a healthy stock. When quite a child, a drunken man had knocked out some of her front teeth, and for this she had lately been persuaded to wear some artificial ones in a frame of red vulcanite. I examined her mouth, got her to save a considerable quantity of saliva (some three to four pints nearly were rapidly and easily collected), and I tested this and her urine, and in both found sufficient mercury to "silver" a sovereign. She was ordered to leave off the plate, to keep the mouth clean with a weak solution of Condy's fluid; a little zinc ointment was used for the eruption, and no medicine given. She also rapidly got well.

The next case was in a man of about 36, and is, if anything, still more convincing.

CASE V.—*Symptoms of Poisoning by Mercury cured more than once by leaving off the Vulcanite Gum, and recurring again when the Teeth were resumed.*—A literary man was brought to me by one of my medical friends, who had heard me speak of the use of these plates. The patient had some years before suffered from symptoms of syphilis, and my friend thought it possible that our patient had been quacking himself. The symptoms were chiefly confined to the mouth, except the nervous phenomena, which closely approached those of hysteria. He was married, and we could not discover any sexual or alcoholic excesses. His mental labour was not excessive, and he had a private income, which kept him from any special anxiety as to money matters. He had been wearing a red vulcanite plate in the lower jaw for about seven months. The symptoms commenced about five or six weeks after this had been fitted. He admitted that he often slept with the plate in his mouth. We agreed not to tell him our suspicions, but to treat the local symptoms, advising him not to wear the teeth till the mouth

grew harder—indeed, at this time he could not bear it in the mouth. *Mercury was found in the urine.* We did not examine his saliva at the time for obvious reasons. He soon got well, was allowed to resume his teeth, and in six weeks was again ill in the same way, though not so badly. Treated as before. On once more resuming the plate (six months after first attack), he was again salivated, had ulcers in the mouth, &c. This time the saliva was found to contain mercury, when a sufficient quantity had been collected. Once more the red gum was left off, and once more he got well. The nature of the case was then explained to him; but he was so incredulous as to our statement, and so full of confidence in his dentist, who was a personal friend of his, that he began again to wear the plate. Three weeks after he told me triumphantly that he was all right; but ere another three weeks slight symptoms had set in, which gradually became more severe; he was attacked with a species of writer's cramp in his right hand, and then he was persuaded to finally abandon the treacherous teeth—or rather, their setting. He has had a gilt metal frame, and has ever since been perfectly well.

Résumé.—I think few candid persons will doubt that in some cases, perhaps more numerous than we now think, severe effects follow the continued use of artificial gums, palates, and teeth-plates coloured with mercurial pigment. The amalgams used by some dentists may produce similar symptoms. The question is one which I think well deserves the attention of scientific dentists and chemists. I write on it as a practical physician; and as my cases extend over nearly twelve years, I do not think I have displayed undue haste in doing so. There is some danger now of arsenical, lead, and chromium pigments being substituted, and toxic symptoms, due to these metals rather than to mercury, may possibly have been noticed in some cases. A dental student told me that herpes labialis is unusually common in those who wear false teeth; but this may possibly be due to mechanical irritation only. Well-fitting teeth are otherwise so desirable, that it would be well to devise and employ some pigment of a natural colour which should be free from the objections attaching to all the metals I have named.

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"SALUS POPULI SUPREMA LEX."

WEDNESDAY, DECEMBER 9, 1874.

THE ACTION OF DRUGS.

V.

IN our second article on this subject we called attention to the fact, that while three-quarters of a grain of extract of Calabar bean was given as the minimum fatal dose for a rabbit weighing 3 lbs., and 20 grains as the minimum fatal dose of sulphate of atropia, yet Professor Bennett gave only three to four and a half grains of the atropia to



antagonise three-quarters of a grain of extract of Calabar bean (Experiments 152-154), and we now give the following extract from the *British Medical Journal*, from the pen of Dr. W. A. Richards, of Winchester, as bearing on this point:—

"The general conclusion of the committee is, that 'the sulphate of atropia does antagonise fatal doses of Calabar bean, but within a very limited area,' and 'that it certainly prolongs life.'

"Now the point to which I wish to call attention is this: the Calabar bean, in these experiments, is given in a dose twice or three times as large as the minimum fatal dose; indeed, in a quantity which proves fatal in a few minutes. But the amount of sulphate of atropia administered to counteract this overwhelming dose of Calabar bean is in no case sufficiently large, when given by itself, to affect the pupil or to produce any symptoms whatever. In almost all the cases, it is only one-sixth or one-eighth part of the dose at which the Committee states that any symptoms of the administration of atropia begin. Ought we, therefore, to expect that such a dose, so totally inadequate to produce the slightest symptom when given by itself, would have any very marked effect on an animal already under the influence of a quantity of another poison sufficient to destroy it in a few minutes? Let us take the second set of experiments, which are the best arranged and most conclusive, and what do we find? Of the first seven rabbits, to which the Calabar bean was given by itself, six died in less than ten minutes each, the seventh in sixteen minutes. But, in the remaining seven, where the same quantity of Calabar bean was followed by one-half grain to one grain and a quarter of sulphate of atropia, life was prolonged in the several cases from 29 minutes to 110 minutes. Thus we find that a quantity of sulphate of atropia, far too small to produce any physiological symptoms when given by itself, yet, given to an animal under the influence of a rapidly fatal dose of Calabar bean, causes it to live from four to ten times as long as it otherwise would. From this, the conclusion would naturally be, that the antagonism between the two drugs was almost marvellously striking; and the apparently obvious lesson that it would suggest would be to increase the quantity of sulphate of atropia given to from three-quarters of a grain to ten grains, fifteen grains, twenty grains, or more; so that it should bear a reasonable physiological proportion to the quantity of Calabar bean given. This, however, does not seem to have been done; and the question to which, through your assistance, I am endeavouring to get an answer is—Why was it not done? Because, as the report stands, the almost homœopathic character of the doses of sulphate of atropia compared to the doses of Calabar bean given seems to explain the results arrived at. Thus the report states that the 'so-called antagonism existed within very narrow limits. The danger was not death by too great a dose of sulphate of atropia, the supposed antagonist, but death from the effects of Calabar bean. In this respect, there was also a marked contrast to the action of hydrate of chloral on the physiological effects of strychnia. In the latter instance the danger evidently would be, in a case of poisoning by strychnia, to give too large a dose of hydrate of chloral; whereas, in the case of poisoning by extract of Calabar bean, it would apparently be very difficult to arrest its effects, because a small dose of the latter produces little effect (at all events in rabbits), and the effects of Calabar bean are so violent as soon to destroy life.' Now the report gives the minimum fatal dose of hydrate of chloral as exactly the same as the minimum fatal dose of sulphate of atropia—viz., twenty-one grains in each case; and the doses of strychnia and of extract of Calabar bean to be counteracted in the two cases are also of much the same relative strength—that is, compared with the minimum fatal dose of each. But the quantities of hydrate of chloral and of sulphate of atropia used to counteract them respectively are extremely different. About fifteen grains or sixteen grains is the ordinary dose of hydrate of chloral

used as an antidote to strychnia, whilst three-quarters of a grain is the ordinary dose of sulphate of atropia used as an antidote to Calabar bean in the experiments of the Committee. That is to say, in the first case, doses verging on the minimum fatal dose of the drug are constantly given; in the second, a sufficient dose to produce any physiological symptoms whatever is never once given, although the poisonous effect to be counteracted in the two cases is of the same strength. It is in order to obtain an explanation of this difficulty, which seems to mar an elaborate, beautiful, and valuable series of experiments, that I have troubled you at this length."

This discrepancy requires explanation, for the question is—Did the experimenters give small doses of atropia to antagonise fatal doses of extract of Calabar bean *because they knew atropia in small doses acts as a stimulant to the heart?* and did they avoid giving large doses in these cases *because atropia in large doses diminishes the force and activity of the heart?* They do not say so, although they conclude from their experiments that "when the proportion of atropia was increased, death was hastened in proportion;" and again, we have pointed out that all the experiments (see *MEDICAL PRESS*, p. 422) would seem to indicate that where the atropia was given to antagonise Calabar bean in larger doses than three-quarters of a grain, *death was hastened than when smaller doses were given.* (Italics ours.)

Thus we see this dual action of a drug is well worthy of investigation, both in antagonising the effect of another drug and in the treatment of disease. The following, which we give below, and which appeared in the *British Medical Journal* of Nov. 14th, from the pen of Dr. T. Lauder Brunton, is also worthy of note, for he says that 1-100th of a grain of sulphate of atropia should be employed to antagonise the effects of muscarine. (Now, Dr. Tanner gives 1-50th of a grain as the medicinal dose.) Thus we see again the small dose used as a restorative because it stimulates the action of the heart; for Dr. Harley found that 1-60th of a grain raised the pulse from between twenty to sixty beats; while 1-20th of a grain lowered the pulse from 110 to 98, diminishing it in volume and power (a). We desire to call especial notice to this subject, as we trust that future experimenters will be more careful in noting the varying effects of different doses, and that thus our knowledge of the range of action of drugs may be placed on a firmer basis, and that we may eventually know more of a drug than that it is simply a "sedative," "stimulant," "purgative," or "diuretic," for we are only "just beginning to realise the fact that our knowledge of therapeutics is very limited; and we hail with pleasure all experimenters who are endeavouring to increase our knowledge of this most important branch of our profession.

We now pass on to the next report, in which Professor Bennett calls attention to the following conclusions, arrived at by Dr. John Harley, and contrasts them with those arrived at by the American experimenters:—

"Conclusions.—1. In the dog, belladonna, when administered simultaneously with opium, more or less completely prevents nausea and vomiting; and, when given previously, entirely prevents these effects. 2. Whether given previously, simultaneously, or subsequently, atropia completely counteracts the respiratory restraint on the free action of the heart, which is so prominent an effect of the operation of opium. We can wish for no more.

(a) "Vegetable Neurotics," pages 203-206.

perfect an illustration of the beneficial influence of a medicine under suitable conditions than that afforded by the simple and direct action of atropia in relieving the impending syncope which often persists for many hours after a dose of opium. At first, the cardiac systoles are doubled, but a regular expiratory pause remains. During the next sixty or ninety seconds, the systoles become stronger and each one distinctly perceptible to the finger; and at the end of this time the inspiratory intermissions cease, and no trace of their presence remains. The effect is even more marked under the influence of the combined action of morphia and thebaia. 3. While the special effects of opium on the muscles of organic life are thus counteracted by the stimulant action of atropia on the sympathetic, the cerebral and anæsthetic effects are intensified and prolonged by belladonna, and hypnosis is converted into narcosis. 4. On the other hand, all the effects of atropia, excepting perhaps the influence on the heart, are increased and prolonged by opium, and the cerebral effect in particular; the insomnia which results from excessive doses is converted into narcotism, or a mixture of narcotism and delirium. 5. The simultaneous action of opium retards the evacuation of urine, but in no degree interferes with the elimination of atropia by the kidneys."

"Conclusions.—1. That the evidence of antagonism in any given case is inconclusive. 2. Taken individually or collectively, the cases show that belladonna has no influence whatever in accelerating the recovery from the poisonous effects of opium. 3. That somnolency, stupor, narcotism, and coma—the essential effects of the action of opium—are both intensified and prolonged by the concurrent action of belladonna. 4. That belladonna is powerless to obviate the chief danger in opium-poisoning—viz., the depression of the respiratory function. 5. That the results of the combined action of opium and belladonna are the same, whether given in medicinal or toxic doses. While, therefore, belladonna cannot in any sense be regarded as an antidote against opium, but in large doses the exact reverse, it may, under certain conditions mentioned below, and always in very small doses, be used in conjunction with other remedies as a means of aiding the recovery. [The 'conditions' to which Dr. Harley alludes are, to give '1-96th of a grain of sulphate of atropia at intervals of two hours, to stimulate the failing power of the heart.]"

The following are the conclusions arrived at by Mitchell, Keen, and Morehouse:—

"The foregoing experiments and observations authorise us, we think, to draw the following conclusions as to the use of hypodermic injections, and as to the antagonism of atropia and morphia.

"1. Conia, atropia, and daturia, have no power to lessen pain when used subdermally.

"2. Morphia thus used is of the utmost value to relieve pain, and is most potent, in certain forms of neuralgia, the nearer it is applied to the seat of the suffering.

"3. Morphia lowers the pulse slightly, or not at all. Atropia usually lowers the pulse a few beats within ten minutes, and then raises it twenty to fifty beats within an hour. The pulse finally falls about the tenth hour below the normal number, and regains its healthy rate within twenty-four hours.

"4. Morphia has no power to prevent atropia from thus influencing the pulse; so that, as regards the circulation, they do not counteract one another.

"5. During the change of the pulse under atropia, the number of respirations is hardly altered at all.

"6. As regards the eye, the two agents in question are mutually antagonistic; but atropia continues to act for a much longer time than morphia.

"7. The cerebral symptoms caused by either drug are to a great extent capable of being overcome by the other; but, owing to the different rates at which they move to affect the system, it is not easy to obtain a perfect balance of effects; and this was made the more difficult from the

fact already mentioned, that atropia has the greater duration of toxic activity.

"8. The dry mouth of atropia is not made less by the coincident or precedent use of morphia. Atropia does not constipate, and may even relax, the bowels; morphia has a reverse tendency.

"9. The nausea of morphia is not antagonised or prevented by atropia.

"10. Both agents cause dysuria in certain cases, nor is the dysuria occasioned by the one agent relieved by the other.

"11. Atropia has no ability to alter or lessen the energy with which morphia acts to diminish sensibility or relieve the pain of neuralgic disease.

"12. As regards toxic effects on the cerebral organs, the two agents are mutually antidotal; but this antagonism does not prevail throughout the whole range of their influence, so that, in some respects, they do not counteract one another; whilst, as regards one organ—the bladder—both seem to affect it in a similar way."

To test these conclusions the Committee make various experiments with sulphate of atropia and meconate of morphia on dogs, first ascertaining that the normal respirations of a dog per minute are about 30, and the cardiac pulsations about 120. They then proceed to inject into a Scotch terrier weighing 12 lbs. two grains of meconate of morphia, dissolved in twenty-eight minims of water, with the following results: depression of the cardiac impulses, from 120 to 72 per minute, and of the respiratory movements, from 30 to 14 per minute. Then, forty minutes after the commencement of the experiment, the cardiac pulsations became so feeble that they could not be counted with accuracy. The respiratory movements were deep and prolonged. The animal was deeply narcotised. Reflex movements were made on touching the eyelashes or the conjunctiva, but there were none on pinching the legs or tail. Fæces were passed involuntarily. There was very little moisture about the mouth. There were slight jerks occasionally of the muscles of the back. The dog continued in this state for four hours, when it began slowly to recover. It recovered entirely. For twenty-four hours it appeared to be feeble in its hinder limbs. Three days afterwards it was quite lively. The dose was nearly, but not quite, a fatal one. Nobody seeing the dog three hours after it had received the two grains of meconate of morphia would have believed in its recovery.

Thus we see that morphia lowers the cardiac impulses and respiratory movements, as stated by Dr. Harley ("Vegetable Neurotics," pages 107-114), and is thus opposed to the statement No. 3 of the American physicians, who say "that morphia lowers the pulse slightly, or not at all." So far the evidence is in favour of Dr. Harley's conclusions.

## THE NEW CHARTER OF THE IRISH COLLEGE OF PHYSICIANS.

OUR readers are already aware, through the columns of the MEDICAL PRESS AND CIRCULAR, that an application on behalf of the Irish College of Physicians for an amended charter was before Parliament last session, and that certain returns referring to the application were called for by Mr. Dunbar. The demand for a new charter has evoked from five of the most noted members of the College—viz., Sir Dominic Corrigan, Professor Haughton,

Dr. Lyons, Dr. Sinclair, and Dr. Cruise—a formidable and forcible protest, which will, no doubt, influence powerfully the decision of the Crown as to the granting of the demand of the College. The memorialists undertake to show that in any new charter to be granted to the College it is undesirable—

1. That the power of election by ballot of Fellows and officers should be granted to the College.
2. That a new grade of members should be instituted without consulting the wishes and interest of the Licentiates as well as those of the Fellows.

In support of the first proposition they object to the use of the ballot because the College, in voting, is exercising a public trust for which it should be responsible to public opinion and to the profession for the due and fair exercise of its powers, and they quote the opinion of the Lord Chief Justice of the Queen's Bench, expressed at the visitation of 1870: "Could it be said to be for the benefit of a learned institution that if any of these gentlemen [Plunkett, Cheyne, Percival, and Graves] happened to be a candidate, he was to be shuffled out of his election by a vote given in the dark?"

From the foundation of the College in 1692 to 1828, a period of upwards of 130 years, there was open voting, and the records of the College do not show that any evil whatever resulted from it. In 1828 the College assumed the power of voting by ballot, and within a few years after that date, and through a subsequent period of forty-eight years, men have been rejected who we assert should not have been black-beaned or excluded by secret voting. "We do not," say the memorialists, "give names, but we are prepared to give them if required."

They moreover characterise the plea that it is desirable that the voting should be secret as a most unworthy motive, and it overlooks the important contrast that while the Fellow would protect himself under the shield of secret voting, the candidate, however worthy, is exposed to have his reputation stabbed in the dark by personal pique, professional jealousy, or religious animosity.

The College consists at present of fifty-five Fellows.

On only one occasion—viz. St. Luke's day, 18th October, when election to offices of trust and emolument to the amount of £1,500 per annum takes place, did the number rise to thirty-three. There were twenty-eight other business meetings in the year, and the average attendance was only fifteen. "It is," they say, "obvious that with so small a body of Fellows and such small attendances the power of election by ballot could be controlled by a very small number, and could be diverted to any purpose."

In 1862, "An Act, 25 Vic., c. 18, to define the powers of the President and Fellows of the King and Queen's College of Physicians in Ireland with respect to the election of Fellows," was passed, which removed restrictions on admission to the College; but the College in the same year passed a bye-law declaring that one black bean in five should exclude, so as to neutralise as far as possible the opening of the College. The rejection of five candidates in succession led to an appeal to the visitors.

Notwithstanding a strong condemnatory expression on the part of the visitors, the majority of the College were still determined to baffle, if possible, the liberalising spirit of the Legislature; they passed the following obstructive bye-law restricting the enlargement of the College:—

"New Bye-law.—Any enlargement of the number of

Fellows shall only be made in pursuance of a resolution passed at three consecutive business meetings, held in each year previous to the 1st July; and every such resolution shall express the number of Fellows which it is expedient to elect on the next ensuing St. Luke's Day."

"We hope," say the memorialists, "we have now advanced facts sufficient to show that election by ballot should not be granted."

Having thus disposed of the ballot question the memorialists address themselves to the second proposal of the draft charter to which they object, viz.:—"That it shall be lawful for the Fellows to institute a grade in the said college (other than that of Fellows or Licentiates), to be styled members, to be elected in such manner, and under such regulations as to collegiate rights, privileges, qualifications, examinations, and payment, as the college may direct."

"This, the memorialists say would confer on the Fellows the power to make any regulations they might think proper, a power that we think ought not to be entrusted to any corporate body."

To the institution of the new grade they object, "on behalf of upwards of 1,200 licentiates of the college, whose fees constitute the chief income of the corporation, and who are not represented upon it. A question so deeply involving the interests of the licentiates should not be dealt with behind their backs, by a small body, and one in which they have no voice."

The memorialists express the view that the creation of this new class would have the effect of indefinitely reducing the prospect of a licentiate obtaining the Fellowship "and thus deprive him of his chance of being elected to any of the offices of emolument in the patronage of the college, for in practice they are usually bestowed only on Fellows."

In conclusion, they state their deliberate conviction that the creation of an intermediate order would tend still further to restrict the number of the corporation, "and to perpetuate the monopoly of offices in the possession of a small handful of Fellows, which has characterised the history of the college in times past, and which at present greatly diminishes the influence and prestige which a body constituted like the King and Queen's College of Physicians was intended to exercise in this country."

The entire protest, emanating as it does from five of the best known and most influential Fellows of the College, and phrased in such unmistakable terms, cannot fail to command attention and respect, and we cannot deny to it our most cordial adhesion and approval. It seems to have been completely forgotten by the Fellows, and for half a century never to have been thought of, that the King and Queen's College of Physicians in Ireland is, or ought to be, something else than a club, and it is well that the injudicious attempt to confirm the illegal practices of the last fifty years has evoked an expression of opinion which may serve to remind them that a great licensing corporation is not always to be managed as a quiet family party.

The power of a few to bar the entrance of new comers into their conclave is perfectly comprehensible and defensible in a social community where every man is entitled to select his associates with regard solely to his own feelings. But such a power is entirely out of place in the administration of a Qualifying Body where no consideration but the advantage of the profession and of the College should enter into the calculation. We venture to predict that no Government will acquiesce in making law of such a system as has existed in the College during the memory of our generation, and we are unmistakably of opinion that the perpetuation of such a system would be disastrous both to the College and to the interests of medicine in Ireland.

## Notes on Current Topics.

### Degrees in State Medicine.

As we have already announced, the question of conferring degrees in Public Health is before the University of London. We hope before this great and growing University adds another to its medical degrees that the propriety of doing so will be studied in all its aspects. The degrees of this University are sufficiently difficult to attain, and we think that the M.B. Lond., considering he has been examined in all the subjects, may fairly consider himself eligible for a medical officership of health without any additional certificate. At this moment the post is open to every registered practitioner, and we hope it may continue to be so. The graduates of the London University take the very highest rank amongst practitioners, and as the new degree would only confer on their own graduates, we cannot see what they have to gain by its institution.

### Faults in the Law for Regulation of Lunatic Asylums in Ireland.

It appears from the observations of the inspectors that the 5th and 6th Vic., cap. 123, by which alone private asylums are regulated in Ireland, is not so comprehensive in its provisions as could be desired. In regard to the right of detention, save in the case of lunatics under the Court of Chancery, none is authorised against common law. Hence the owner of a private asylum is liable at any moment to an action for false imprisonment in this country, on the plea of harbouring a paid-for lunatic, however marked his malady. Indeed, the same principle, if it be one, holds good in our public institutions for the insane, if the party detained is not deposed to as being absolutely dangerous to himself or others. The anomaly was sustained in a trial here, when an acknowledged maniac obtained substantial damages against the governors of the Richmond District Asylum, at a trial in the Court of Queen's Bench.

Again, there is no provision in Ireland as in England for allowing convalescents out on a temporary probation, to be protected during its continuance from incidental consequences. Nothing is occasionally more practically useful than such an opportunity to test the mind prior to absolute freedom being accorded. Neither in case of an escape is there a legal power of capture or recovery. The inspectors say:—"These deficiencies, from the result of experience, we should wish to see remedied, and especially on behalf of the insane themselves, and the protection of property. It appears to us most desirable that in certain doubtful cases the inspectors should have power to allow convalescents abroad, under cautious restrictions in each case, and after a personal examination, to verify cures."

### Complications of Gonorrhœa.

DR. DOMINIQUE CALVO (*France Méd.*, No. 92) recommends the application of fifteen or twenty leeches at the commencement of epidymitis to the groin, and the testicles to be wrapped in linseed-meal poultices. Rest in bed is requisite, and every two days a purge of Seidlitz powders. Later on, three times daily, he recommends rubbing with

3 grammes of mercurial ointment and 6 grammes of extract of belladonna. If there are pains of acute character, he recommends punctures with the lancet. When the inflammation has disappeared and there remains only engorgement, he recommends friction with 6 grammes of extract of belladonna, 4 grammes of iodide of potassium, and 30 of purified lard, and also emplastrum vigo cum mercurio to envelope the scrotum.

### Hydatid Cyst.

DR. GALLARD (*France Méd.*, No. 92) mentions the case of a patient who died in his wards from the effects of a supposed hydatid cyst of the liver. Recamier's method of puncture was employed, and afterwards Dieulafoy's method, with negative result in both cases. The patient succumbed.

### Diseases of Newly-born Infants.

DR. PARROT (*Le Progrès Méd.*, No. 47) says that thrush in infants sometimes communicates cracked nipples to nurses, and even may give the nurse thrush of the nipple by contagion, and the nurse may reinfect another infant.

### Dr. Dujardin-Beaumetz on Therapeutics.

On commencing a course of lectures in the *Ecole Pratique* of Paris, recently, the above gentleman says, "The physician who overwhelms his patient with drugs is very often in reality the poorest physician." He observed that the useless plants and compositions should be put out of the codex, and only the really active substances retained.

### Jaborandi.

M. ALBERT ROBIN, in the *Société de Biologie* (*Le Progrès Méd.*, No. 47), communicated the effects of jaborandi on animals and patients seen in the wards of Dr. Gubler. One of the first symptoms, remarked in some five minutes after taking the drug, was exaggerated lachrymal secretion, then salivation and abundant sweating. The secretions are also made more active in the stomach, the bronchial tubes and trachea, and nasal fossæ, the secretion of the intestines being increased so as to cause diarrhœa. The temperature in man is increased immediately before the sweating period. In patients with articular rheumatism such phenomena are noticed; and on the morrow lowering of the temperature may be seen. Gubler on this account recommends jaborandi in articular rheumatism, when there is no heart disease, since it causes palpitation. It is of service in cases of bronchitis and of albuminuria.

### The Comparative Success of Lunacy Treatment in Ireland.

It appears from the latest Parliamentary Report that, so far, then, as the important objects for which Irish district asylums have been established are to be judged of by statistics, but above all by their affording a refuge to our fellow-creatures as places of judicious treatment and safety, as well as the indirect but certain benefits accruing to society at large, by checking, as far as human means can, the propagation of mental disease, so hereditary in its character, their working during the year 1873 has been satisfactory and successful.

The recoveries during the year 1873 amounted to

1,031—547 males and 487 females—or nearly 11 per cent. upon the total—9,417—under treatment during the twelvemonth. The aggregate deaths in the same period were 665. The mortality—or 7·10 per cent. on the entire number in asylums, and for the most part among the aged and infirm—is under the general average elsewhere.

Analysed according to the usual mode, the recoveries during the past twelve months in Irish public asylums would realise 45 per cent., and the improvements, as represented by discharged patients, 3, between both fully 58 per cent. on admissions.

The inspectors attribute much of this success to the improved method of treating lunatics which has recently been adopted in these institutions. They express an opinion that—

“There is probably no single deficiency more detrimental to the well-being of the insane, be they in public or private establishments, than want of occupation. A listless and apathetic existence, tending to encourage delusions, will often frustrate the best directed efforts of science.

“The arrangements for employing and amusing patients are not quite adequate in some district asylums, although there ought to be no great difficulty in devising means to carry out such desirable objects to their full extent, for the special circumstances of each institution will probably suggest the best means for carrying out the principle referred to. Boards of Governors will find, even from an economic point of view, that they will best consult the interests of the institution committed to their care by the moderate outlay the adoption of these suggestions would involve. The cost would be more than repaid by a reduction of the period patients might otherwise remain under treatment.”

#### Remedy for Dysmenorrhœa.

DR. EDIS recommends in some cases a suppository of half a grain of morphia with one-seventh of a grain of atropine inserted at bed time in dysmenorrhœa. This, he says, will often allay the most severe pain, and enable the patient to procure sleep, when otherwise she would have passed the night in agony, the stomach itself refusing to absorb anodyne mixtures, rejecting them as soon as swallowed, and thus cutting the patient off from the ordinary means of relief. In other cases of dysmenorrhœa he recommends an enema of water as hot as the patient can conveniently bear, combined or not with half a drachm of laudanum.

#### Pathological Society.

AT the Pathological Society of London, Nov. 3, 1874, Mr. Warren Tay showed two children with alopecia areata and trichophyton tonsurans. The children had bald patches, whilst the hairs in the neighbourhood were the subject of bulbous atrophy. In these cases the trichophyton was found along with the bald spots. Dr. Tilbury Fox would not affirm that circumscribed baldness might not be produced by a fungus. Sir William Jenner held that the baldness was due to atrophy of the hair bulbs, and that this atrophied condition favoured parasitic growth. The fungus grew readily, and where was there a more favourable nidus than an atrophied hair bulb? Mr. Hilton Fagge had never met with a case of true alopecia areata due to a parasitic growth.

Dr. Dowse described a case of aneurism of the pulmonary artery which occurred in a girl, æt. 19, who was pregnant. There was enlarged cardiac dulness and systolic murmur over the pulmonary artery, but death took place from pericarditis. The pericardium was covered with lymph and contained blood, coming from a rent in a globular tumour, of the size of a pullet's egg, at the root of the pulmonary artery, which was filled by a firm clot. There were vegetations in the pulmonary valves, and enlargement of the right ventricle, with tricuspid regurgitation.

Dr. Cayley showed a specimen of syphilitic disease of the heart from a man who died in bed after taking a dose of chloral, to which he was accustomed. The heart was enlarged, and contained in its structure several fibroid nodules, which were seen microscopically to consist of fibro-nucleated tissue and small round cells.

#### The Antagonism of Remedies.

IT appears from the Report of the Committee of the British Medical Association to investigate the Antagonism of Remedies, that the minimum fatal dose of theine for a cat weighing nearly five pounds was  $5\frac{1}{2}$  grains. The minimum fatal dose of meconate of morphia was found to be for a cat from  $1\frac{1}{2}$  to  $1\frac{3}{4}$  grains. Theine was not found to be an antagonist to the poison of morphia, except that convulsions were prevented, but death ensued. The meconate of morphia does not act on rabbits at all in the same way as it does upon cats. Epileptiform attacks are caused in rabbits by the salts of morphia, and theine produces similar results. The physiological action of theine and caffeine are so similar as to make it impossible to distinguish these substances from one another. Six grains of caffeine produced in a cat weighing 5 lbs. intense excitement, convulsion, and death in two and a quarter hours. The antagonism of caffeine to morphia in cats was also limited, although apparent. Guararine given in doses of 4 grains to a cat weighing 5 lbs. 1 oz. did not prevent death of the animal, which took place in two hours, after much excitement, after the subcutaneous injection of 1 grain of meconate of morphia.

#### A Cambridge Certificate in State Medicine.

IT has been publicly announced in the daily papers that the Board of Medical Studies has recommended the Senate of the University of Cambridge to institute a Certificate in State Medicine, and it is actually proposed that any registered practitioner should be eligible for examination. This is one of the most liberal proposals that have emanated from this liberal board, and if we are to have special certificates at all, it is most desirable that they should be thus freely conferred on all who are willing to submit to an examination. The subjects of examination are to be as follows:—

1. Physics and chemistry: the principles of chemistry and methods of analysis, with especial reference to analyses of air and water; the laws of heat and the principles of pneumatics; hydrostatics and hydraulics, with especial reference to ventilation; water-supply, drainage, construction of dwellings, and sanitary engineering in general.
2. Laws relating to public health.
3. Sanitary statistics.
4. Origin, prevention, pathology, and propagation of epidemic diseases; effects of over-crowding, vitiated

air, impure water, and bad and insufficient food; unhealthy occupations, and the diseases to which they give rise; water-supply and disposal of sewage and refuse; nuisance injurious to health; distribution of diseases within the United Kingdom, and effects of soil, season, and climate. The fee for the examination is to be four guineas.

### The Development of the Irish Lunacy System.

A COMPARISON of the arrangements for the care and custody of lunatics as it existed twenty-four years ago, and as it now exists, is drawn by the inspectors in their report, and is both interesting and instructive. We adverted to the growth and extension of asylums in Ireland, from the period when the department, limited to ten public asylums, containing 2,300 patients, was transferred as a separate branch of the public service to the undivided charge of the inspectors of lunatics. We have now reached a date in its development, when irrespective of the Central Criminal Asylum, and of other institutions, such as union workhouses, in which persons mentally affected and subject to our visitations are largely to be found, district asylums, containing 7,400 inmates, have increased in number to twenty-two, and private houses to twenty-one. The total outlay already entailed in the construction and establishment generally of district asylums may be estimated at about a million and a quarter. The cost of their support and maintenance last year amounted to £186,400.

### The Opium Crop.

THE *Philadelphia Reporter* says that the crop of this year now averages from 4000 to 6000 baskets or cases. Of this quantity the United States require above 2000 cases. The price has risen lately, averaging £1 per pound. Fifteen years ago it averaged 15s. per pound. Owing to the late high prices, some persons at Smyrna have during the last two years adulterated the pure drug by mixing it with spurious matter, and passing it off as first quality. They succeeded in selling about 300 cases during the last two years; but as the fraud has been discovered, the consequence has been that purchasers have been very careful from whom they obtain this drug. The crop for 1874, which is collected in May and June, has suffered considerably from the late severe frosts; consequently a short yield will also increase the value. In 1873 the stock existing in Smyrna was 1500 baskets; in London, 700; and in the United States, 600 baskets.

### The late Dr. Edward Smith, F.R.S.

THIS gentleman's official career was alone sufficient to entitle him to the respect of the profession and the public; but he had done other work of even greater importance, and some of his original investigations were models that many might well imitate. His researches on the effects of exertion on the breathing and the pulse, and those on the action of alcohol and other agents, deserve the highest commendation. His work on "Health" is well known, and another on "Food" forms one of the International Series brought out by Messrs. King and Co., and he also only recently published one of the best manuals for medical

officers of health and inspectors of nuisances. We cannot help regretting that his death should have been made the occasion of reviving an old controversy, between him and the editor of a contemporary the only object of which appears to be to depreciate the dead because he did not always agree with the editor in question.

### Anæsthesia by the Simultaneous Employment of Chloral and Chloroform.

DR. LAUNELONGUE (*France Médicale*, No. 93) read before the Société de Chirurgie of Paris some experiments of M. Fornet, who proposes to attain anæsthesia in two divisions. In the first period opium or morphia is given, and chloroform in the second. M. Fornet prefers chloral to opium, either by the mouth or rectum.

In the case of a child aged five years, two grammes of chloral were given: the patient fell off to sleep, and during sleep chloroform was administered.

In the second case a man, aged twenty-five, who had failed to be anæsthetised by chloroform, had five grammes of chloral, and in an hour and a half fell asleep, when chloroform was given and the operation performed.

M. Fornet observes that there is an immense difference between giving chloroform when the patient is awake and when he is asleep. When the patient is awake a large dose of chloroform is needed, hence the danger of poisoning.

Dr. Dolbeau, on the contrary, said that chance had proved to him the danger of giving chloroform after chloral—a lady who used to take syrup of chloral to alleviate the pain of fissure of the rectum—and the patient on being given chloroform was nearly dying from the effects of the combination. In two other cases dangerous symptoms supervened, and one of them proved fatal.

M. Guyon spoke in confirmation of M. Dolbeau's remarks.

M. Démarquay had seen in animals a great tendency to chilliness after the use of chloral and chloroform successively.

M. Perrin corroborated the observations of M. Fornet. He had given three grammes of chloral, and then chloroform, with good results.

Dr. Dolbeau's cases were those of great doses.

### Exophthalmic Goitre.

DR. TEREOL brought a man, aged forty-one, before the Société Médicale des Hôpitaux with the threefold characters of exophthalmic goitre. The goitre was unilateral (*France Méd.*, No. 92), on the right; there was no pulsation in it, and it had slightly diminished in volume through the influence of tincture of iodine. The exophthalmos was double and slight. There were palpitations of the heart, not perceived by the patient: the goitre arose in 1874. There were derangements of sensation and mobility, more marked on the right side. There was diplopia, vertigo, and hyperalgesia, with exaggerated reflex movements. He asked whether this was not goitre complicated with cerebral tumour, or sclerosis, or softening. He had put the patient under hydropathic treatment, iron, and digitalis; but the latter caused vomiting and was discontinued. He intended to try electricity.

Dr. Dujardin-Beaumetz thought that the patient had two diseases—exophthalmic goitre, and perhaps also dis-



ease of the cord. Was there no chance of there being also diabetes?

Dr. Tereol said there was no diabetes. In 1874 the goitre appeared; in January, 1874, vertigo; and in June, vomiting.

Dr. Herard was not surprised that the patient had never noticed his palpitations, for he had seen patients with 160 and 170 pulsations per minute not perceive them. Hydro-pathic treatment had succeeded best with him, and digitalis was of no use.

Dr. Gros said iodine sometimes was useful, without doing any damage, and iron and hydropathy were useful.

Dr. Potain had seen diabetes and albuminuria in a patient with exophthalmic goitre.

### Accommodation for the Irish Insane and Prevalence of Lunacy.

THE Inspector's Report, which has just reached us, contains the following comparative summary of the registered and unregistered insane for the year 1873, contrasted with the number recorded in last Parliamentary returns:

	1872.	1873.
In public asylums . . . . .	7,140	1,347
In private do. . . . .	647	664
In gaols . . . . .	—	—
In poorhouses . . . . .	2,966	3,130
In Lucan, supported by Government	30	25
In Central Asylum for Criminal Lunatics . . . . .	175	160
Total number of registered insane	10,958	11,326
Insane at large . . . . .	7,219	6,881
Total in Ireland . . . . .	18,177	18,307

The above table indicates an increase of registered lunatics at the close of 1873, but it will be also seen from it that the excess in the accommodated is in part met by a diminution in the mentally affected at large.

We assume that a like ratio to the population has been maintained as in 1873, as among the sane and the insane, the total number of the latter in 1871 being 18,327, or about three in each thousand of the population; in 1872 it was 18,177, and in 1873, 18,303.

Under these circumstances, and looking to the fluctuations in the amount of the inhabitants of different localities. The inspectors believe that lunacy is not only not on the increase since 1871 in Ireland, but that when old and chronic patients now in asylums and elsewhere, who, eight-and-twenty years ago constituted a portion of the percentages of the population of Ireland when it was nearly 2,000,000 greater than at present, shall have died off, a certain decrease is likely to result in the absolute number of our insane; while in England the advance within the same period of three years, in those "reputed to be of unsound mind," was 3,387, or from 58,640 to 62,027.

### Professor Lister and the Antiseptic Method.

A CORRESPONDENT of the *Progrès Medical* (No. 47), writing from Edinburgh, in November last, speaks of the Royal Infirmary with its 500 beds, where the surgical wards are quite separate from the medical. Mr. Lister, says the writer, admits the ideas of Pasteur without reserve,

and repudiates all ideas of spontaneous generation, and is a partisan of the vital theory of fermentation. He believes that wounds exposed to the air may be contaminated by atmospheric germs, bacteria, and other organisms therein contained, and to prevent them we must try to prevent the entrance of the germs.

In entering Mr. Lister's wards, which contain usually not more than five or six beds, we are struck with the strong smell of carbolic acid. The assistants plunge their hands when dressing the wound in solution of carbolic acid. The wound is washed with a solution of one-tenth of carbolic acid, and all instruments used are dipped in the carbolic solution.

Eight layers of gauze dipped in the carbolic solution are placed over the end of the stump to be dressed, and between the seventh layer and the eighth a very thin layer of india-rubber is placed. The whole apparatus is fixed with bands of gauze which have been dipped in the following mixture:—Carbolic acid, one part; resin, five parts; paraffin, seven parts. The resin is employed on account of the tenacity with which it retains the carbolic acid, and the paraffin is added to give a suitable consistence.

Mr. Lister gives the greatest care to his cases, and passes many hours a day in his wards.

### The Employment of Eschmarch's Elastic Compression as a Means of obtaining Local Anæsthesia.

DR. CHAUVEL read in the *Société de Chirurgie (France Méd., No. 92)* a paper on this point, in which, after taking the normal sensibility of the part, and then applying the elastic compression for some time, he again tried what the sensibility was. In only one case was the patient refractory; in all the rest a diminution of sensibility was remarked. The anæsthesia produced requires fifteen to twenty minutes to bring it about, and it appears more marked in the upper than in the lower extremity. The anæsthesia is almost always incomplete. Analgesia is the most marked feature. The sensation of contact remains longer.

In the wards experiments were made with three cases of toe-nail grown in. In the first case, the elastic ligature having been applied, the surgeon cut and tore away a piece of nail of six millimetres in breadth. The patient said there was very little pain. In the second experiment the remains of the nail were removed without much pain; and then Vienna paste was applied for twelve minutes to the matrix without causing pain.

M. Le Fort having employed the method of elastic compression, had been struck with the diminution of the sensibility in the compressed limb, but had never witnessed complete insensibility.

### Metropolitan Asylums Board.

At a fully-attended meeting of the managers of the Metropolitan District Asylums on Saturday last, the presentation of the report as to the state of the Homerton Hospital led to a long discussion. It stated that the committee had felt it their duty to annex the report of the medical officer, from which it would be seen that there had been 73 admissions, 59 discharges, and 16 deaths, leaving 210 patients under treatment. The minimum accommo-

dation, as the managers were aware, was fixed at 102, but most of the cases brought being children, the committee had ventured to authorise the superintendent to increase the number of beds to the same extent as was done at the height of the late small-pox epidemic—viz., 140. Should, however, the admissions continue at the present rate, the committee feared they would not be able to meet the requirements of the district for more than a fortnight longer; and should this happen to be the case application must be made to the Stockwell committee for accommodation, the pressure there not appearing so great.

The report as to the overcrowding of the Homerton Hospital formed an argument to show the necessity for the erection of another hospital for the accommodation of patients suffering from fever, small-pox, or other infectious diseases, and the danger was pointed out of there being no receptacles should an epidemic of small-pox or fever break out.

The report from the Stockwell Hospital committee stated that during the past fortnight there had been received 34 cases, that there had been 6 deaths and 50 discharges, leaving 111 under treatment, as against 140 at the last meeting. In the small-pox hospital 12 patients had been admitted, 2 had been discharged, and 1 had died, leaving at present 11 under treatment.

The report of the Leavesden committee stated that during the past fortnight there had been received six patients, seven had died, and one discharged, leaving 1,802 at present in the asylum.

Reference was made as to the introduction of small-pox into London by means of emigrant ships, and the necessary precautions were decided upon.

### Small-pox Inoculation in Ireland.

At the Castlebar Petty Sessions, last week, an old man named John Prendergast was charged with attempting to inoculate the children of Edward Jeffers, at Curraun, co. Mayo. The prisoner was charged under "32 Vic., chap. 87, sec. 4," which gives the magistrates summary jurisdiction to order imprisonment for periods up to six months.

Mr. Fitzgerald said the practice of inoculation had been going on in his district to a great extent, and there had been several deaths from the pernicious practice. This was not, he knew, the defendant's first offence either.

The information of the constable was read. He arrested the prisoner, and on his person he found two lancets, and when he came in sight of him he endeavoured to hide in the ground a paper parcel, which, on being opened, was found to contain "matter." The prisoner informed the Bench that he had not used the lancets for a number of years back. Edward Jeffers said that when the prisoner made the proposition to him to inoculate his children he sent for the police. The prisoner returned a few days afterwards and renewed the proposition. The Bench, after a private consultation, remanded the prisoner for eight days, for the opinion of the law adviser, and the evidence of Dr. Knott, to whom the "matter" was to be handed over in the meantime.

It would seem that the magistrates were in doubt whether they could convict without evidence that the lymph found on the prisoner was variolous. In the present case, we imagine, the proof of the fact that he proposed in-

oculation ought to be sufficient to establish his guilt, even if no lymph or lancets had been found in his possession; but the case introduces a new consideration, as to how it would be possible to ascertain without doubt whether lymph found on a prisoner was variolous or vaccinnous. Probably the microscope would afford unchallengable testimony on the subject.

### Typhoid Fever and the Water-Supply at Lewes.

THE Local Government Board sitting at Whitehall will scarcely wait until the town of Lewes has been decimated by fever before taking the necessary steps to put a stop to the further supply of water containing the specific typhoid fever germs to the inhabitants. A water company supplying water seriously contaminated by sewage ought to be made amenable to the adulteration laws, and the officer of health should be empowered to deal with a dangerous form of adulteration with a high hand. The directors of the water company at Lewes, by all accounts, seem to think the poisoning of 450 of their customers of less importance than that of securing "a good dividend."

The Rev. W. S. Edwards, writing as a sufferer in his family, by partaking of a poisonous dose of the Lewes fever water, scarcely feels inclined to ascribe the disease to "an accidental and temporary pollution of the water." It appears that "during the dry season of last July, the vile sewage water was pumped into the pipes from a neighbouring stream, and from that time the town became a hospital—husbands, wives, and children were struck down and homes filled with mourning. We have little hope of any better management for the future. Not a single word of sympathy for the 450 sufferers has been uttered; and with a strange callousness the chairman of the Waterworks Company coolly said, 'Although one of their first duties might be to endeavour to get a good dividend for their shareholders, yet the directors of the Lewes Water Company did not feel that to be the only object they had in view;' 'the directors were prepared to incur any reasonable expense to supply the town,' &c. As to a constant supply, which is declared to be indispensable, the chairman further added, 'If it could be done consistently with anything like a reasonable remuneration, he was sure the directors would be prepared to recommend it.' It has since transpired that the constant service is exceedingly doubtful, and in the meantime, fresh cases of fever almost daily occur in the town of Lewes."

### Soldiers' Cottages at Woolwich.

WE hear that diphtheria has been prevalent in the soldiers' cottages on Woolwich Common, and that many children have died of the disease.

### Killed and Wounded in the War of 1870.

DR. CHENU reports that during the Franco-German war, the French lost 138,871 men by wounds or disease. This includes 2,818 officers. The Germans lost 40,741.

It has been determined to establish a Hospital for Incurables in Glasgow, and another in Edinburgh, and a considerable sum of money has already been promised for the purpose.

### Drunkenness as a Cause of Insanity.

A FORCIBLE but disheartening opinion upon the effect of drink upon the prevalence of lunacy in Ireland is expressed by the inspectors of Irish lunatic asylums in their last report. They express their opinion that indulgence in the use of ardent spirits, and unfortunately of the most deleterious quality, is becoming more prevalent from day to day in the country, instigating its victims to the wildest acts of violence and depravity—maddening, without actual delusions, and terminating for the most part in epilepsy, or disease of the brain, but not in genuine lunacy.

Melancholy, however, as may be the immediate consequences of drunkenness to those unceasingly addicted to it, the results are occasionally far more deplorable in regard to the offspring of inebriate parents, who are born imbecile, idiotic, mutes, or malformed, as the inspectors have known to be the case in two, or even three, members of the same family.

### New Examples of Tubercular Lesions in the Spinal Cord.

DR. LIVUVILLE, Chief of the Laboratory of the Cliniques at the Hôtel-Dieu (*Progrès Méd.* No. 47), showed recently a spinal cord, in the cervical region of which existed a large tubercle, yellowish in colour, rather resistant in character, and which occupied the grey substance to the extent of about an almond in size. This was found in a young man aged 26, who had generalised tuberculosis, with symptoms of meningo-myelitis. The myelitis was shown by paraplegic symptoms and eschars on the sacrum. The autopsy made 15th April, 1874, showed miliary tubercles in the lungs, with small cavities. Liver was fatty degenerated.

Tubercles were found in the cerebral membranes and brain in the form of miliary granulations, along the vessels and also in the cerebellum.

In the spinal cord a medullary arachnoiditis was noticed, very intense in character, especially posteriorly, in the middle third of the cervico-dorsal region. This was characterised by very numerous fine and recent adhesions. The pia mater was thickened, whitish, wrinkled, and quite hid the cord itself. There was fluid in the arachnoid cavity, and the pia mater was in places as if imbibed with a kind of turbid, thickish serosity.

The venous trunks in the neighbourhood were enlarged and varicose. Below the brachial enlargement of the cord there was remarked a certain augmentation in volume of the cord, but there was no clear hardness perceptible. On section there was found a tumour occupying almost the whole of the cord, in the grey substance. It was yellowish in colour.

### Affections of the Tongue.

At the Medical Microscopical Society, on November 20th, Dr. Goodhart read a paper on "Ichthyosis Linguae." He had seen the disease in two cases, both men over fifty, with history of syphilis. It was characterised by hard white elevated patches on the tongue, and more rarely on the cheeks, like warty excrescences, consisting of numerous vertically set papillae covered by thickened epithelium. The underlying cutis vera and subcutaneous tissues were also hypertrophied. The muscular tissue of the tongue was

not affected. At present, the disease was incurable. Mr. Jabez Hogg preferred the term tylosis linguae to that of ichthyosis. Mr. Fairlie Clarke had seen thinning of the papillae from pressure of the epithelium. Cancer supervened, either from growth of epithelium from above or below, as the result of irritation of the patch of ichthyosis.

### Dissemination of Literature in America.

AUTHORS and publishers, medical and non-medical, are aware that of late years a very large demand has existed on the part of American houses for English books, the remainders of whole editions of which are sometimes taken off the hands of medical writers at reduced prices to make way for new editions. It may not be uninteresting, therefore, to quote some facts stated in *The Bookseller* as to the enormous development of the trade in what are called "subscription" books at the other side of the Atlantic. Every one is acquainted with the class of book-pedlars who pay us an occasional visit, and "palaver" us into taking monthly numbers of a "History of the War," or some work of the sort which we don't want, and for which we shall eventually pay about twice the shop price. It is this canvassing system which may be said now to supply the American provinces with literature. There is a very large class of people who, without being positively illiterate, have no inclination to enter a book-store, even if there happen to be one in the neighbourhood, which is not always the case. They are wealthy enough to buy books, but would never think of doing so unless the agent presented the book to their notice, accompanied by a glib account of its useful or amusing qualities. The people to whom I allude, while possessing little culture, are very far from being ignorant, in the ordinary acceptation of the term. They would never think of buying a book, any more than a chromo or a patent needle-threader, unless it was brought to their notice; and then, if the agent knows how to interest them, they will buy the one as readily as the other. To assist and protect his agent, the publisher will use his best efforts to prevent his books getting into the hands of the regular trade, and it is only by the most ingenious artifices that booksellers can obtain a scanty supply of subscription books. A large firm will sometimes have as many as five hundred canvassers employed directly or indirectly in selling its books. Ten thousand copies of a book in the subscription trade is considered a very moderate sale indeed; and a book must generally reach a sale of twenty thousand to be considered a success. A book entitled "Nurse and Spy," giving the experiences of an army nurse, caught the popular fancy, and 185,000 copies were sold within eighteen months. It would be hard to get more than two cents a pound for the book to-day. The following is a list of some of the most successful books published in Hartford within the past ten or twelve years: Mark Twain's, "Innocents Abroad," 150,000; "Roughing It," 110,000; "The Gilded Age," 58,000; "Beyond the Mississippi," 150,000; "Field, Dungeon, and Escape," 105,000; "The Great Rebellion," by J. F. Headley, 150,000; "Bible History," 95,000; Dr. W. Smith's "Dictionary of the Bible," 100,000; Parson's "Laws of Business," 125,000; "Sunshine and Shadow," by Matthew Hale Smith, 100,000; Lossing's "History of the Civil

War," and "History of the United States," both in several volumes, continue to sell at the rate of nearly 20,000 volumes a year.

### The Scarletina in Ireland.

THE returns for the last two weeks made by the Registrar-General are evidently unreliable, and they manifest the want of punctuality, which unfortunately characterises the Irish registration system, and must continue to characterise it as long as so great a quantity of avoidable clerk-work is imposed upon the medical registrar at an utterly insufficient remuneration. According to the returns, the mortality from scarlatina, which we reported a fortnight since as having only slightly increased in Dublin, but as having alarmingly advanced in Belfast, had last week risen to a high ratio in Dublin, but fallen much lower in the north. The Dublin mortality of that week was 29, or 11 more than the previous week, while the Belfast deaths numbered 32, or 20 less than shown in the previous return. It is evident that the weekly returns do not ever approximately represent the actual mortality.

The returns of the present week lead us to hope for an actual decline in the epidemic, for we observe that in Dublin the deaths are down to 19, while those in Belfast, 36—about the same as were recorded in the previous return.

THE Royal Society reopened on Nov. 30.

YELLOW fever is in its most virulent form at Charleston, U.S.

SMALL-POX has broken out in Jamaica, and quarantine has already been declared.

ACCORDING to the *Daily Telegraph*, typhus has broken out in the garrison of Spandau.

SIR RANALD MARTIN has just died at a ripe old age, full of honours and surrounded by friends.

SOME cases of puerperal fever have occurred at Leicester, said to have been propagated by a nurse.

THERE has been an outbreak of small-pox in Vienna, the victims being chiefly children of an early age.

SMALL-POX has broken out at Rugby, and a temporary hospital is to be immediately erected.

DR. FAYRER, F.R.C.P., has been appointed to succeed the late Sir R. Martin at the Indian Medical Board.

DR. P. W. LATHAM has been elected Downing Professor of Medicine at the University of Cambridge.

DR. HARRIS has resigned his office at St. Bartholomew's Hospital. Dr. Hollis is a candidate for the vacant Assistant-Physiciancy.

AN examination of candidates for twenty appointments as surgeon in Her Majesty's Indian Medical Service will be held in London in February, 1875.

LIFE-LIKE photographs have been published by Messrs. Fradelle and Marshall of the late Dr. Edward Smith, F.R.S., and of the late Dr. Lankester, F.R.S.

THE time-worn old "Dreadnought," which was the home of so many sufferers as the Hospital Ship, opposite Greenwich Hospital, has been sent to Chatham to be broken up.

WE are not surprised to learn that Mr. Forsyth, M.P., Mr. Boord, M.P., Colonel Addison, and Mr. Thicke, have resigned their seats as members of the Hospital Saturday Fund.

THE Paddington Vestry is sending out a circular to the ministers of all the denominations in the parish, urging them to press upon families afflicted with scarlet fever, the propriety of not letting their children continue attending such schools. We have already recorded several similar proposals to curb the progress of the disease.

By the will of the late Miss Ellen Markland, St. Mary's Hospital and the Epileptic Hospital of London each receive £500, the Leicester Infirmary a like amount; the West London Hospital, Brompton Consumption Hospital, Moorfields Ophthalmic Hospital, Medical Benevolent College, Epsom, Hospital for Sick Children, Royal Free Hospital, and the Cancer Hospital, each receive £200.

THE French nation, through two accredited representatives, presented her Majesty, on Thursday last, with four magnificent volumes, of about three feet in thickness, entitled "Homage Nationale." These volumes contain the signatures of the representatives of all sections of the French nation, and are intended to perpetuate their sense of gratitude to the British nation for help rendered to their sick and wounded during the late war. This souvenir, so excellently conceived, and delicately carried out, will be accepted by the nation in the same friendly sympathy that prompted it to minister to the sick and dying in so terrible an emergency.

THE will of the late Professor Wyman, of Boston, which has been duly proved, contains, as stated in the *Boston Medical and Surgical Journal*, some bequests of great interest to the profession. His admirable collection of comparative anatomy is left to the Boston Society of Natural History in consideration of a very moderate sum. Though not very large, this collection is nearly perfect in its way. As an illustration of the anatomy of the vertebrates, it is unequalled in America. It represents the greater part of Prof. Wyman's labours, and will be a perpetual monument to him. On some future occasion we may give some account of its chief features.

The specimens of morbid anatomy and monstrosity are left to the Boston Society for Medical Improvement. The collection of this Society is to be given to the Medical School as soon as the new building is finished.

### Double Aortic Aneurism.

IN the Glasgow Pathological and Clinical Society Mr. H. E. Clark recently showed a case of double aortic aneurism. The upper aneurism, in the ascending part of the arch, was very large, and seemed in process of spontaneous cure, the fibrinous layers being very firm, and fully two inches thick. This aneurism had pushed aside the neighbouring parts without producing any great pressure; the pneumogastric and inferior laryngeal nerves, although in contact with the aneurism, were not imbedded in its walls. The second aneurism, much smaller, involved only the posterior part and right side of the descending aorta, opposite the fourth dorsal vertebra, to which it firmly adhered. An opening of one-eighth of an inch in diameter communicated between the sac and the œsophagus. There was difficulty in swallowing, but no laryngeal symptoms.

### The Surgical Society of Ireland.

THE opening meeting of the Surgical Society of Ireland, which was deferred from the previous week in respect to the memory of the late Dr. Hargrave, who had died a few days before, was held on Friday evening last in the Royal College of Surgeons, and was very largely attended. The inaugural address was delivered by the President of the College, Mr. Tufnell, and was listened to with much interest and attention. Mr. Tufnell reviewed the objects of the Society and its constitution, and referred in eloquent and feeling terms to the death of Dr. Hargrave and Dr. Arthur Jacob, both of whom had been intimately connected with the Society for many years, and with whom he (the President) had been associated as a colleague for nearly a quarter of a century.

At the desire of Dr. Arthur Jacob, expressed just before his last illness, the President presented to the College the original drawings on ivory made for the illustration of Dr. Jacob's communication to the Royal Society on the "Membrana Jacobi" in 1819, and also a number of original drawings of the anatomy of the eye made for the illustration of a subsequent contribution to the Medico-Chirurgical Transactions in 1832.

Mr. Tufnell also presented, on his own behalf, the very primitive and unadorned ink-bottle from which, for a long series of years, Dr. Jacob's pen had written most of his ablest scientific and journalistic publications.

We hope to print the address *in extenso* in our next.

THE Professorship of Midwifery in the Royal College of Surgeons in Ireland has become vacant by the resignation of Dr. Sawyer, and the Council have issued notices for an election of his successor.

Dr. Sawyer succeeded to the Professorship on the resignation of it by the late Dr. Thomas Beatty. The candidates spoken of as likely to seek the Professorship are Dr. Lombe Atthill, Dr. John Cronyn, Dr. Rutherford Kirkpatrick, Dr. William Roe, and Dr. More Madden. Dr. Kidd will not be a candidate.

### Vivisection and the British Medical Association.

THE episode of the last meeting of the British Medical Association which disturbed the equanimity of the vivisectional physiologists so seriously has been made the ground for legal proceedings, which, we very much regret to learn, have been instituted by the Society for the Prevention of Cruelty to Animals against the gentlemen connected with the Physiological Section of the Norwich meeting. It will be recollected that two dogs had been prepared for the purpose of illustrating the effect of injecting certain preparations into the veins, when Mr. Tufnell, the President of the Irish College of Surgeons, and Professor Houghton entered the room. These gentlemen protested against the cruelty of subjecting the dogs to such an experiment, which they declared was entirely unnecessary and commonplace. Something resembling a *mêlée* ensued, during which Mr. Tufnell cut the cord which bound the dogs, and set them at liberty. Afterwards, we believe, the animals were again secured, and the experiments performed. The prosecution set on foot by the Society for Prevention of Cruelty to Animals commenced, we believe, yesterday, and Mr. Tufnell has gone to Norwich on a *subpoena tecum duces* to give his evidence in the case.

## Correspondence.

### HOSPITAL SATURDAY.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—With the greatest pain I have read the article "Hospital Saturday" in the MEDICAL PRESS of Nov. 25. When I consider the effect such writing is likely to produce on your readers, I cannot help fearing that an undue prejudice will arise in their minds against the "working man," so severely taken to task for having "conclusively demonstrated their utter meanness of mind and complete lack of humanity." As I am one of that class (the working man), will you allow me to say that scarcely a week elapses without subscriptions being required, *and paid*, for the relief of necessitous wives, children, and widows of our own members. If your readers could spare the time to visit workshops and manufacturing premises—I mean the places in which we absolutely work, not the ante-rooms or counting-houses—they would there see announcements of benefits, invitations for help, and appeals for aid. These appeals are *invariably met and liberally subscribed to*. If it happens (as I have occasionally known) that one person declines to pay his mite, the utter contempt which his "mates" display to him soon convinces him that his "complete lack of humanity" meets its due reward in the sharpness of his comrades' remarks. As I have worked in London (the working men of which city fares so hardly—I had almost said unjustly—at your hands—I am sure unwittingly so) for thirty-four years as a journeyman, I think my experience may count for something; and I unhesitatingly say that a vast amount of money is paid weekly by my fellow-workmen of all trades in charity, properly so-called. That there are amongst us too many, alas! who "spend a comfortable weekly income on skittles, drunkenness, or ruffianly laziness," we are compelled reluctantly to admit. But that the "working-man" as a class is amenable to such a sweeping charge I demur to; witness the numerous benefit societies, sick clubs, provident societies, and other institutions of a similar description, *entirely supported* by our own class. Surely we may ask for more consideration from the medical profession than that meted to us in the article I venture to refer to. Speaking personally, I can but hope that the writer was carried away for the moment by his anger against a totally uncalled for movement, initiated by totally unknown persons, and therefore totally mistrusted. This I venture to assert, that if Hospital Saturday had been set on foot by any of those leaders of the working class who are known and trusted, the result would have been far different. These titles—whether military or naval—are not *alone* sufficient to inspire confidence, unless some other claim than that can be advanced. I fear to trespass on your valuable space by many further remarks, or I could, I believe, say much to alter the impres-

sion I so dread being made on the minds of those who read your CIRCULAR; but would respectfully suggest that a very large proportion of the Sunday collection came immediately from those who are accused of not sparing "even a sixpence a year to keep himself and his family above the pauper herd, or to alleviate the miseries of his destitute fellow-worker." We can afford to pass by the remarks about brawling "republicanism" and talking "patriotism as long as he can get a platform upon which to display his ignorance," &c., as we hope your readers know full well that these charges are somewhat exaggerated, as far as the mass of workmen are concerned: there must necessarily in all classes be offences, but "woe unto those through whom offences come"—and apparently through whom they do *not* come, sometimes. I would not have presumed to address the editor of a medical journal had I not felt that an unjust prejudice might be created in that quarter we so much respect, and feared that no word of remonstrance would have a chance of being heard if I had taken any other means of contesting that which I sincerely believe must have been written under a very pardonable sense of wrong and injustice. Trusting to that universal liberality—so well known and appreciated by the working men themselves—which has ever distinguished the profession in whose interest the MEDICAL PRESS has spoken, I crave the insertion of this very imperfect attempt of mine to remove a well-meant, but unfounded animadversion from a class of whose honour I am jealous, and whose members I, from long association, respect, and even love. Enclosing my name and address,

I am, Sir, very respectfully yours,

H. P. G.

Nov. 26, 1874.

[OUR correspondent will do us the justice to remember that we have spoken of working men in the abstract, and not of the superior class to which his very intelligent and well-phrased letter shows him to belong. Little as is our confidence in either the motives or the judgment of the promoters of the Hospital Saturday movement, we cannot think that its failure was the result of a similar want of confidence on the part of the London "working man." The enthusiasm with which the class of men of whom we speak has from time to time joined in Trafalgar Square demonstrations and Hyde Park revolutions show that there is no lack of "steam" amongst them for the furtherance of much less worthy objects, and at the bidding of much less worthy leaders, than those who had the guidance of the "Hospital Saturday" movement. After all, our correspondent will admit that "benefits, invitations for help, and appeals for aid," which are confined to the working man's own class, are only a narrow-hearted sort of charity, and, in our opinion, little credit for benevolence attaches to the working man for the weekly or monthly subscription which he gives to his trades union, or to the "benefit societies, sick clubs, provident societies, and other institutions of a similar description," which he joins usually for the contingent enjoyment of their advantages by himself.

The facts of the case remain unaltered by any defence of the working man which may be offered. *Imprimis*, it is notorious that the average wages of a skilled London artisan amount, as compared with the necessities of his family, to a handsome independence, at least, sufficient to enable him to secure medical attendance for them in sickness and to spare a little for his poorer neighbour—*Item*.

A day's experience of the out-patient rooms of the London Hospital is sufficient to show that the artisan class habitually quarter themselves, their wives and children upon public charity—*Item*.

The ignominious failure of the Hospital Saturday appeal shows that the artisan class as a whole are ready to take all they

can get for nothing, but not pay even a fraction of a penny per head per annum in real unselfish charity.

Can our correspondent balance the weight of these three facts by quoting a single philanthropic movement originated by working men or carried into effect by their leaders?—Ed. M. P. & C.]

## Medical News.

University of London.—The following are lists of the candidates who passed the recent examinations:—

### B.S. EXAMINATION.

#### First Division.

Duncan, Peter Thomas, University College.  
Gould, Alfred Pearce, University College.

#### Second Division.

Crocker, Henry Radcliffe, University College.  
Houghton, Walter Benoni, University College.  
Pope, Harry Campbell, Liverpool Royal Infirmary and University College.

### M.D. EXAMINATION.

Addy, Boughton, St. Thomas's Hospital.  
Barfoot, George Harry, University College.  
Barlow, Thomas, B.S., B.Sc., University College.  
Bomford, Gerald, King's College.  
Cockburn, John Alexander (*Gold Medal*), King's College.  
Colgate, Henry, B.S., University College.  
Coupland, Sidney, University College, and Middlesex Hospital.  
Dyson, William, B.A., University College.  
Gibbins, Alfred Thomas, King's College.  
\*Greenfield, William Smith, B.S., University College and St. Thomas's Hospital.  
Harris, James Alfred, University of Edinburgh.  
Mackey, Edward, Queen's College, Birmingham.  
\*Skerritt, Edward Markham, B.S., B.A., University College.  
Vachell, Charles Tanfield, King's College.

### LOGIC AND MORAL PHILOSOPHY ONLY.

Buck, Thomas Alpheus, Guy's Hospital.  
Dukes, Clement, B.S., St. Thomas's Hospital.  
Perkins, Charles Edward Steele, Guy's Hospital.  
Yeo, Isaac Burney, King's College.

## NOTICES TO CORRESPONDENTS.

✂ CORRESPONDENTS requiring a reply in this column are particularly requested to make use of a *distinctive signature or initials*, and avoid the practice of signing themselves "Reader," "Subscriber," "Old Subscriber," &c. Much confusion will be spared by attention to this rule.

### THE CONTAGIOUS DISEASES ACTS.

To the Editor of the MEDICAL PRESS AND CIRCULAR.

SIR,—The position of the MEDICAL PRESS AND CIRCULAR on the question of the Contagious Diseases Acts is certainly, as you remark, "more independent and more just than that of the other medical weeklies." There is very much to be said on the side of those who oppose the Acts, and I therefore trust that you will allow me to call the attention of your readers to a few facts for which I am indebted to the Army and Navy Medical Reports.

In the army in the five years from 1861 to 1866 secondary or true syphilis, the only disease which can be considered a matter of State concern, went down without the Acts from 31 to 23 cases of admission to hospital per 1,000 men. In the next five years, from 1866 to 1871, with the Acts, it only went down from 23 to 20, notwithstanding all the efforts made by the administrators to show good results, and in every intervening year it was higher with the Acts than in 1866, the year they were first introduced. In the same periods gonorrhoea went down without the Acts from 111 to 93 cases per 1,000 men, and went up with them from 93 to 105, having also been much higher in the intervening years.

The navy report also shows conclusively that the navy is in a worse condition than it was in 1866, the year when the Acts were first enforced. Thus, in the years from 1862 to 1866, the total admissions to hospital had gone down without the existing Acts from 143 to 80 per

\* Obtained the number of marks qualifying for the Medal.



1,000 men; but since 1867 the number of admissions has gone up without intermission every year, till in 1871 it stood at 101 per 1,000 men. The admissions for gonorrhoea, which went down between 1862 and 1865 from 35 to 20, have gone up since 1866 from 20 to 50 per 1,000 men. The number of admissions for true syphilis was almost identical in 1871 with what it was in 1866, and the number of men constantly sick of venereal affections was so likewise, although from 1862 to 1866, without the Acts, there had been a large diminution of this number.

A very striking fact is the great increase in the number invalided for venereal diseases in the army since the introduction of the Acts in 1866. The year the existing Act was introduced, it was 43; in 1871 it was 81; in the intervening years it touched so high a number as 145. All this shows conclusively that the army and navy were better without the Acts than with them; and the same observation is true also of the women subject to the Acts, for among the registered women disease has increased above 20 per cent., and the deaths are twenty times as many as in the year before the Act enjoining periodical examinations was passed. In fact, Sir, the Contagious Diseases Acts is both a crime and a blunder; it costs £40,000 a year and does not do one pennyworth of good.

Your obedient servant,

CHAS. BELL TAYLOR, M.D., F.R.C.S.E., &c.

Nottingham.

**THE HOSPITAL FUND.**—The *Boston Medical Journal* of the 19th ult. states, "The Hospital Sunday Fund in London amounted to £1,000, which cost £1,100 to collect." Our contemporary will allow us to correct this misstatement. The Hospital Sunday Fund in the places of worship in the metropolis yielded over £30,000, costing but a few hundreds to collect and distribute. The Hospital Saturday Fund (workmen's) yielded £3,800, and cost £1,500 to collect.

**INDIAN MEDICAL SERVICE.**—Notice of an examination for the appointment of surgeons in H.M.'s Indian Service is announced in another column.

DR. J. V. L.—We regret that we cannot extend our Free List by placing your name thereon.

**PATENT MEDICINES.**—"Will you help me out of this mud-hole?" asked one traveller, whose team was stuck in the mud, of another who was passing. "No, I can't stop," said the other. "I would take it as a great favour," said the man in trouble. "What are you loaded with?" asked the traveller. "Patent medicines," was the reply. "I guess I will try to help you out, then, as I am loaded with tombstones." They have been constant companions ever since.—*Philadelphia Medical Times*.

DR. D., of S.—Crowded out for want of space. It will appear in our next.

**COMMUNICATIONS, ENCLOSURES, &c.**, have been received from—Prof. de Aguiar, Lisbon. Dr. Winslow, London. Dr. Ormsby, Dublin. Dr. Labore, Paris. Dr. Lane, Isle of Man. Dr. Pavy, London. Dr. Pearson, Scarborough. Dr. Heaton, Leeds. Dr. Kennedy, Dublin. Dr. Harvey Hilliard, Holloway. Dr. Hime, Sheffield. Dr. Blake, Bloomsbury. Dr. Nicholas, Wandsworth. Dr. James, Camden. Dr. Davys, Swords. Dr. Bartley, Bristol. Dr. Boyd Mushet, New Brighton. Dr. Purdon, Belfast. Mr. Lunn, Edgbaston. Mr. Hutchinson, Rugby. Dr. Hughlings Jackson, London. Dr. Martin, Portlawn. Mr. Goodall, Leeds. Mr. Brown, London. Dr. Borchardt, Manchester. Mr. Towle, Manchester. Mr. Wilson, Westminster Hospital. Dr. Hand-sel Griffiths, Dublin. The Secretary of the Westminster Hospital. Dr. Murdoch, Magherafelt. Dr. Wade, Kilcock. Dr. Usher, Dundrum. Dr. Hamerton, Navan. Dr. Kelly, Mullingar. Dr. Sanderson, Kiltormer. Dr. Carleton, Delvin. Dr. Lynn, Armagh. Dr. Jones, Cork. Dr. Burne, Dublin. Mr. Gale, Bath. Mr. Cooke, Thurles. Dr. O'Connor, Galbally. Dr. Luther, Cappoquin. Dr. Tate, Dublin. Dr. McCarthy, Fethard. Messrs. Fannin and Co., Dublin. Dr. McIlroy, Ballymoney. Dr. Shanley, Athlone. Dr. Reid, Kingstown. Mr. Beatty, Coombe Hospital. Dr. W. Smith, Dublin. Dr. Hanan, Tallow. Dr. Grealy, Lettermore. Dr. Murphy, Croom. Mr. Swingborne, London. Dr. Agar, Ponder's End.

#### MEETINGS OF THE LONDON SOCIETIES.

WEDNESDAY, Dec. 9th.—Epidemiological Society, 8 p.m. Mr. J. Netten Radcliffe, "On Plague." Drs. Dickson, Schlimmel, and Marconi on similar subjects.

Hunterian, 7½ p.m.—Meeting of Council. Eight p.m. Dr. Roper, "On the most advantageous Method of Delivery in Placenta Previa."

FRIDAY, Dec. 11th.—Clinical, 8½ p.m. Mr. Rouse, "On Aneurism." Mr. Venning, "On Syphilis with Secondary Symptoms after Twenty-three Years."

MONDAY, Dec. 14th.—Medical Society, 8 p.m. Ordinary.

TUESDAY, Dec. 15th.—Pathological, 8 p.m. Ordinary.

#### BOOKS, PAMPHLETS, AND MEDICAL JOURNALS RECEIVED.

The Philosophy of Voice. By Chas. Lunn. London: Baillière, Tindall, and Cox.

St. Bartholomew's Hospital Reports. Vol. X.

Clinical Pocket-Book. London: Smith, Elder, and Co.

Rational Medicine. Introductory Address by D. Ferrier, M.D. London: Smith, Elder, and Co.

Bolivia. By Avelino Aramayo. London: T. Richards.

The Art and Science of Medicine. Introductory Address by Dr. Dickinson.

Fourth Annual Report of the Vigilance Association.

The Forces which carry on the Circulation of the Blood. By Andrew Buchanan, M.D. London: J. and A. Churchill.

The Middlesex Hospital Reports for 1873.

Journal de Thérapeutique. The Druggist. The Students' Journal.

The Clinic. Philadelphia Medical Reporter. Medical Times. Allgemeine Wiener Medizinische Zeitung. The Obstetrical Journal. The Practitioner. Monthly Microscopical Journal. Guy's Hospital Gazette.

#### VACANCIES.

North-Eastern Hospital for Children, Hackney. House Surgeon. Salary, £100, with furnished apartments, &c. (See Advt.)

Parish of St. James's, Westminster. Medical Officer of Health and Analyst. Salary, £200. Applications to the Vestry Clerk.

Brighthelm Infirmary. House Surgeon. Salary, £100 per annum, with furnished apartments. Applications to the Hon. Sec. before the 8th inst.

Nottingham General Hospital. Physician. Honorary.

Marylebone General Dispensary. Physician. Honorary.

Woolwich Union, Kent. Assistant Medical Officer to the new Infirmary at Plumstead. Salary, £60, with board and residence. Applications, under cover, to the Clerk to the Board.

Ashton-under-Lyne. House Surgeon to District Infirmary. Salary, £80, with board and residence. Applicants must address Mr. Hugh Mason, Ashton.

Poplar Sick Asylum. Dispenser, at 2 guineas per week. Applicants must address the Clerk to the Managers, Brompton, Middlesex.

Gloucester Infirmary. Surgeon and Assistant Surgeon. Both Honorary. Applications to the Secretary.

Farringdon Union, Berks. Medical Officer for the Shrivensham District. Salary, £70 per annum, with fees extra. Applications, under cover, to the Clerk to the Guardians, Farringdon.

#### APPOINTMENTS.

BENHAM, W. T., M.D., M.R.C.S.E., Physician-in-Chief to the Chilean Government Lunatic Asylum at Santiago.

BUCK, W. E., M.B., M.R.C.S.E., Medical Officer of Health for the Oakham Rural Sanitary District.

CLARK, H. E., L.R.C.P.Ed., a Dispensary Surgeon to the Royal Infirmary, Glasgow.

COOK, R., L.R.C.S.Ed., Medical Officer and Public Vaccinator for the Desford District of the Market Bosworth Union.

CROCKER, H. R., M.B., M.R.C.S.E., Resident Medical Officer to the Charing Cross Hospital.

FLINK, D. E., L.R.C.S.I., L.K.Q.C.P.I., Medical Officer for the Lampugh District of the Whitehaven Union.

HARRIS, J. W., M.R.C.S.E., a Consulting Surgeon to the Exeter Dispensary, on resigning as Surgeon.

HUGHES, P. W., L.R.C.P.Ed., L.R.C.S.Ed., House Surgeon to the County and Borough of Carmarthen Infirmary.

LATHAM, P. W., M.D., F.R.C.P.L., Downing Professor of Medicine at the University of Cambridge.

LAURIE, J., M.D., a Dispensary Physician to the Royal Infirmary, Glasgow.

LOTHIAN, J. A., M.D., L.R.C.S.Ed., an Extra Dispensary Surgeon to the Royal Infirmary, Glasgow.

M'EWM, W., M.D., a Dispensary Surgeon to the Royal Infirmary, Glasgow.

MATHER, G. R., M.D., a Dispensary Physician to the Royal Infirmary, Glasgow.

PALEY, J. H., L.R.C.P., M.R.C.S.E., Resident Medical Officer to the Ripon Dispensary.

ROBERTSON, Dr., Resident Medical Officer to the Carlisle Fever Hospital.

ROBERTSON, E. B., M.B., Medical Officer to the Stepney Union Workhouse.

TAYLOR, F. A., M.R.C.S.E., Medical Officer of Health for the Wells, Norfolk, Urban, and Port Sanitary Districts.

TERREY, C., M.R.C.S.E., Medical Officer for the Workhouse of the Newport Pagnel Union.

THOMAS, W., F.R.C.S., Honorary Surgeon to the Birmingham and Midland Free Hospital for Sick Children.

THOMSON, S. J., M.R.C.S.E., House Surgeon to the Kent and Canterbury Hospital.

TRENNER, G. W., M.R.C.S.E., Medical Officer of Health for the Falmouth Rural Sanitary District.

WEIR, J., M.B., a Dispensary Physician to the Royal Infirmary, Glasgow.

WHITSON, J., M.B., C.M., an Extra Dispensary Surgeon to the Royal Infirmary, Glasgow.

WILLIAMS, F., M.R.C.S.E., Medical Officer of Health for the Launceston Rural Sanitary District.

WYBRANTS, J. H., L.R.C.S.I., L.K.Q.C.P.I., Medical Officer for the Kelmsedon District of the Frome Union, Somersetshire.

#### Marriages.

EVANS—BUNNACKS.—On the 1st inst., at St. Andrew's Church, Hasted, Samuel Evans, L.R.C.P., M.R.C.S., of Harwich, to Sarah Sophia, youngest daughter of the late Harcourt Bunnacks, of Harwich.

HAMERTON—THOMPSON.—On the 26th ult., at Golden Church, co. Tipperary, Morran Fox Hamerton, M.B., M.Ch., T.C.D., to Sarah Anne, second daughter of George Thompson, Esq., Kilmore House, Cashel.

#### Deaths.

GILKETT.—On the 3rd Dec., at 77 Vauxhall Bridge Road, London, Wm. Gillett, L.R.C.P.Ed., aged 49.

HAWES.—On the 26th Nov., Robt. Hawes, M.R.C.S.E., of Wimborne Minster, aged 74.

JAMES.—On the 19th Nov., Thos. James, M.R.C.S.E., of Marine Terrace, Aberystwith, aged 58.

LESLIE.—On the 2nd Dec., at Armagh, James Leslie, M.D.

MARKS.—On the 26th Nov., of scarlatina, at 26 Hatch Street, Dublin, Emily, wife of Alex. H. Marks, M.D.

MACINTYRE.—On the 28th Nov., James MacIntyre, L.R.C.S.Ed., of London Road, Glasgow, aged 45.

SMALLMAN.—On the 23rd Nov., at Lincoln, J. C. B. Smallman, M.D., of Willingham, near Gainsborough, aged 40.

SMITH.—On the 25th Nov., Wm. Scott Smith, L.S.A.L., of Eastwood Notts, aged 74.

SUTHERLAND.—On the 25th Nov., at George Street, Croydon, William Sutherland, M.D., M.R.C.S., in his 63rd year.

WILSON.—On the 29th Nov., at Bryanston Street, Portman Square, Wm. T. Wilson, L.K.Q.C.P.I., late Staff Surgeon H.M.S. Iron Duke.

**SPARKLING WINES FROM SAUMUR.**—An interesting article has just appeared in the *Medical Times and Gazette* on Sparkling Wines. In consequence of the recent rise in the price of Champagnes, it appears that attention has been directed to the district of Saumur, in the north-western portion of France. Dr. Druiitt, the author of the article in question, remarks:—"Both in society and in medical practice the use of Sparkling Wine is largely on the increase. Nothing is so exhilarating with so small a quantity of alcohol in it," and adds that the wines of Saumur, "although perfectly familiar in London, have hitherto been decorated with other names than their own," and that "every year 4,000,000 bottles of wine from Saumur are sent to this country, where it has been ticketed with any name the purchaser chooses to give it." He concludes his article with the following advice:—"It surely is foolish to give 4s. or 5s. for a second-rate Champagne, when a wine which is either the same identically, or rather one better than the second-rate brands of Champagne, may be had for less money." One firm, the Messrs. W. and A. Gilbey, of London, are introducing these wines through the medium of their Agents in every town, under what Dr. Druiitt calls, "the modest and true appellation of Sparkling Wines of Saumur."—[*Morning Post*, December 2nd, 1874.]

**ROYAL COLLEGE of PHYSICIANS of LONDON.**—The NEXT PROFESSIONAL EXAMINATION for the MEMBERSHIP will commence on THURSDAY, JANUARY 21.

Candidates are required to give fourteen days' notice in writing to the Registrar of the College, with whom all Certificates and Testimonials required by the Bye-laws are to be left at the same time.

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H. A. PITMAN, M.D., Registrar.

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#### INDIAN MEDICAL SERVICE:

**NOTICE is HEREBY GIVEN,** that an EXAMINATION of CANDIDATES for Twenty Appointments as Surgeon in Her Majesty's Indian Medical Service will be held in London in February, 1-75.

Copies of the Regulations for the Examination, together with information regarding Pay and Retiring Allowances of Indian Medical Officers, may be obtained on application at the Military Department, India Office, London, S. W.

A further notice will be issued when the exact date of examination has been fixed.

T. T. PEARSON, Major-General, Military Secretary.

India Office, 1st December, 1874

**SURGICAL SOCIETY OF IRELAND.**—The SECOND MEETING of the SOCIETY will take place on FRIDAY EVENING, 11th DECEMBER, 1874.

Chair will be taken at half-past eight o'clock precisely.

H. WILLY RICHARDSON, F.R.C.S.I., } Hon. Secs.

HUMPHREY MINCHIN, F.R.C.S.I., }

Royal College of Surgeons, Dublin,

26th day of Nov., 1874.

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**Z 74. WILTS.** Easily-worked PRACTICE and APPOINTMENTS for SALE, in a pleasant locality, with direct railway communication. The receipts are nearly £400 a year. Appointments, £150. The house is large and convenient, with garden, stabling, &c. Midwifery, £1 ls. and upwards. An efficient introduction can be given, and there is great scope for increase.

**Z 73. LONDON SUBURBS. DEATH VACANCY.** In a populous district, near Regent's Park, the SUCCESSION to a TRANSFERABLE PRACTICE, returning £600 a year, can be secured by an active gentleman on easy terms. The house has been for many years a medical residence, and the widow can give an effective introduction. Terms, £450, of which the greater part may be paid by instalments properly secured.

**Z 72. SALOP.** Old-established COUNTRY PRACTICE for TRANSFER. Receipts, £500 a year. Midwifery, £1 ls. to £5 5s. About 36 cases annually. No opposition. House contains 11 rooms, with detached cottage, stabling, large garden, and land. Rent, £50. Advancing age the cause of retirement. Premium, 1 year's purchase, part of which may remain on security.

**Z 71. PARTNERSHIP in a well-established TOWN and COUNTRY PRACTICE.** Average receipts about £1,100 a year. Appointments yield £200. Midwifery, £1 ls. to £5 5s. Patients good class. A third share, with succession to one half is offered, or the whole would be sold with a quasi partnership introduction. The residence is large and very convenient, with garden, stabling, &c. Held on lease at a rental of 50 guineas. The highest references can be given.

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**Z 68.** In a good agricultural district, a PRACTICE of £600 a year FOR TRANSFER. Appointments £280. No opposition. The house contains ten rooms, with stabling, garden, &c. Rent £26. Midwifery fees £1 ls. and upwards, except in the case of a few old patients. The locality is about 100 miles from London. Railway station within a few miles. To a suitable gentleman, free to enter at once, easy terms would be conceded.

**Z 46. EXCELLENT NUCLEUS,** specially suited to a Catholic gentleman. The receipts during the past year have been £250, and the connection promises to become large and select. Convenient house and detached cottage. Rent £26 a year. The Incumbent having in view a valuable public appointment, desires to make an immediate arrangement.

# The Medical Press & Circular.

"SALUS POPULI SUPREMA LEX."

WEDNESDAY, DECEMBER 16, 1874.

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## Original Communications.

### ON THE SCIENTIFIC AND EMPIRICAL INVESTIGATION OF EPILEPSIES.

By J. HUGHLINGS JACKSON, M.D., F.R.C.P.,  
Physician to the Hospital for the Epileptic and Paralysed, and to the London Hospital.

#### CHAPTER III. (concluded).

AFTER these digressions, purposely made in order to show principles of classification, which are to be applied so far as possible to all kinds of cases of nervous disease, I return to Epilepsies.

I admit two classifications to the Empirical Classification, or rather Arrangement of Varieties of Epilepsies, and of Epileptiform Convulsions would be—

#### EMPIRICAL ARRANGEMENT.

##### A. Epilepsy Proper.

- (1) Vertigo.
- (2) Petit mal.
- (3) Grand mal.

##### B. Epileptiform, or Epileptoid.

- (1) Convulsions beginning unilaterally.
- (2) Unilateral Dysesthesia (migraine)
- (3) Epileptiform Amaurosis.

&c.

Plainly enough, such an arrangement goes by what is most superficial or striking. The advantages of it are obvious. It facilitates identification and the application of knowledge to utilitarian purposes. But it must not be trusted as a natural classification. However much it may be further elaborated, it can make not even an approach to a scientific classification. No amount of refined sub-division starting from a definition which makes loss of consciousness a symptom *sui generis*, would make the arrangement a natural classification, for there would never be points of contact with other classes of nervous diseases or symptoms. No common principle underlies it. It is a great misfor-

tune when a student takes such an arrangement, founded obviously on superficial differences and resemblances, as a natural system, and endeavours only to see if a given case approach nearest this or that entity. The clinical divisions are avowedly artificial. Authorities are fully agreed on this point. As regards the clinical divisions of the symptoms of epilepsy (of what, in the arrangement, is called epilepsy proper), there are very many intermediate degrees traceable. On this point authorities agree—they agree, that is to say, as to the clinical facts. (a) There are, clinically, degrees traceable from a slight and transient loss of consciousness, (b) which, to give an example, simply permits the hand to fall in raising a fork to the mouth, the mouthful being the very next moment safely delivered, to severe universal convulsions, with loss of consciousness, followed by deep coma. So far, I speak of different cases. The same patient may have seizures of different degrees, sometimes *petit mal* and sometimes *grand mal*. Again, a patient, after being for months subject to *petit mal*, or even to slight vertigo, becomes subject to the *grand mal*, or to both; and

(a) They do not admit that they are degrees in the sense which I hold them to be—viz., as being due to discharges of different degrees beginning in (*see* Chap. II., p. 411) the highest centres of the cerebral hemispheres.

Let me state the differences categorically. The reader is reminded that the epilepsy of authorities ("idiopathic epilepsy") is spoken of.

The accepted opinion is that two different and distant parts (the medulla oblongata and the cerebral hemisphere) are concerned in the epileptic paroxysm. I think but one part, the cerebral hemisphere, is concerned, and that of this only the highest centres are the seat of the discharging lesion. (The discharge, of course, spreads through lower centres.)

The accepted view assumes two different processes—(1) a discharge of the medulla oblongata, and (2) a contraction of the arteries of the brain. Correspondingly there are, according to it, two essentially different states—(1) passive, in the cerebral hemisphere, and (2) active, in the medulla oblongata. I think there is but one process in the paroxysm, an active one—that is, a discharge beginning in the highest processes of the cerebral hemisphere. Consciousness will be lost during the excessive excitation of these processes.

(b) Loss of adjustment, &c.

in many cases of patients who suffer both there is clear proof that the *petit mal* is an abortive fit—i.e., the initial stage of the *grand mal*. In these cases the *petit mal* merges into the *grand mal*. Then, although we have illustrated by loss of consciousness there are really in slight attacks of epileptic vertigo, or *petit mal*, all degrees of affection of consciousness. It is not very uncommon for a patient to have for months sudden and short queer feelings at the epigastrium, and a little confusion of thought, which conditions later on he recognises as being just the same as the initial symptoms of his attacks of *petit mal* and of *grand mal*. As mentioned (Chap. II., p. 411), a patient may tell us that he is confused only, and will say that he hears people talking, but does not know what they say. This is only defect of consciousness. Again, we see, as has been repeatedly stated, that there are all degrees of automatism after different degrees of epileptic seizures, and this is indirect evidence of all degrees or depths of implication of the anatomical substrata of consciousness.

If we take cases of what are called "epileptiform" seizures, we find all degrees even in the same patient—we find, for example, attacks of convulsion of the arm without a trace of affection of consciousness; and again, attacks in which he loses consciousness, and is deeply comatose when the fit is over. There are, indeed, all degrees of discharges, from those causing twitching of the index finger to those causing universal convulsion. Similarly, there are very numerous degrees of paralysis after convulsion of different degrees of violence, from numbness of a hand to hemiplegia with lateral deviation of the eyes.

However convenient the empirical division may be clinically, and I admit its convenience, the division is not an anatomico-physiological one; it is, I think, of psychological parentage.

So, in admitting the necessity for clinical purposes of an arrangement of varieties of epilepsy, I urge that in a scientific classification we must start from a more fundamenal basis. The one I suggest is that there is in each epilepsy a sudden and violent discharge, and that those varieties called by authorities genuine epilepsy are explainable on the supposition of a discharge beginning in the highest series of nervous processes. Other seizures begin in series of a lower range of evolution (subordinate series)—for example, convulsions beginning in hand, face, foot, &c.

In this book I deal chiefly with the Scientific Investigation of epilepsy but I must frequently speak of the Empirical Investigation: it will be absolutely necessary to do so. What I hope I shall not do is to mix the two classifications.

The reader who does not make allowances for the distinctions I have made may give reasons for rejecting my method altogether but if he does reject it he can scarcely be considered a fair critic of details. A botanist would not think a gardener ignorant because he put together his plants as they were of use for eating or for ornament; and a gardener would not think a botanist ignorant because he classified plants, regardless of their being herbs, trees, or shrubs. Let me state the method anew.

In the Scientific Investigation of a case in which there is loss of consciousness, vertigo, convulsion, or any symptom whatever presented paroxysmally, the endeavour is not to determine if there be any approach to or departure from any clinical standard—to, or from, what has been described as genuine epilepsy for example. There being occasionally a paroxysmal presentation of symptoms (see List, p. 392), an internal and local discharging lesion is inferred. Since any part of the convolitional surface of the brain may become unstable—may become the seat of a "discharging lesion"—there will be many varieties (a) of epilepsy. Since the size of the discharging lesion will vary, and as probably

the grey matter affected differs in degree of instability, there will be seizures not only of all kinds, but of all degrees. Not only will the paroxysms of different patients differ in that, as, for an example, the paroxysms in one affect first the leg—in another, first the arm, but there will be such differences as that of two fits beginning in the hand: one is limited to the arm, and the other spreads all over the body.

We must, however, even in the Scientific Classification and Investigation, make arbitrary divisions—for instance, we shall speak of three degrees of convulsions beginning unilaterally; we shall be obliged to do so. All classifications in all sciences make distinctions more exact and abrupt than any that exist in nature.

It may seem to the reader that this is returning to the old method. In the first place, the new method takes count of all kinds of paroxysmal discharges, even such as "subjective" sensations of smell. And in speaking of degrees we do so only for the sake of exposition. In actual practice we encounter all conceivable degrees. And this method necessitates a precise study of what occurs in the paroxysm in each case on its own merits, regardless whether it approaches any arbitrary standard, and equally regardless whether it be one of the degrees spoken of for clearness of exposition in the Scientific investigation. It necessitates also a very careful localisation of the changes discoverable *post mortem*; for, as stated, every epileptic paroxysm is considered as a brutal development of the function of some part of the brain.

The researches of Hitzig and Ferrier will help this investigation to an extent difficult to over-estimate; for I most willingly admit that the method I uphold has made very little way. From their researches we shall learn where to look for the minute changes which constitute the discharging lesions in different epilepsies. Whatever interpretation may be put on their facts, there is no doubt, at any rate, that irritation of different parts of the surface of the brain leads to different classes of movements. Correspondingly, there is no doubt that at least some epilepsies beginning by movements in different parts of the body depend on "disease" of different parts of the surface of the cerebral hemisphere.

#### APPENDIX TO CHAPTER III.

The following is the quotation referred to at page 476:

"Let us first consider the *range* of the term [Epilepsy], let us see what disorders are properly ranked under this head. It is no easy matter to do this exactly and correctly; we may err in two ways: on the one hand, by too closely restricting our conception of the disease to its more classical types, and so leaving out of count and consideration a great number of more or less closely allied derangements; and the other, by two great laxity in the use of the term, leading us to overlook important distinguishing circumstances. We shall best meet this difficulty, I think, by referring to the principle so well laid down by Whewell ('Philos. of Ind. Sci.' vol. i., p. 494). This is that Natural groups are determined not by Definition, but by Type; not by a boundary line without, but by a central point within; not by what they strictly include, but by what they eminently include; by an example, not by a precept. 'A type,' he proceeds, 'is an example of any class, for instance, a species of a genus which is considered as eminently possessing the characters of the class. All the species which have a greater affinity with this type-species than with any others form the genus, and are ranged about it, deviating from it in various directions and different degrees. Thus, a genus may consist of several species which approach very near the type, and of which the claim to a place with it is obvious; while there may be other species which straggle further from this central knot and which yet are clearly more connected with it than with any other. And even if there should be some species of which the place is dubious, and which appear to be equally bound to two generic types, it is easily seen that this would not destroy the reality of the generic

(a) It does not follow that there will be as many practically as are theoretically possible; for some parts of the brain are more often damaged than other parts—the Sylvian region, for example; this is a consequence of arterial arrangements. When I come to speak of Pathology I shall consider this subject, and especially with regard to embolism and thrombosis, as possible pathological processes in inducing local "discharging lesions."

groups any more than the scattered trees of the intervening plain prevent our speaking intelligibly of the distinct forests of two separate hills.' To apply this to the case before us. It appears to me that, taking the convulsive form in its entirety, for the type, it shades off on one side by the *petit mal* into mere vertigo, on another, into hysteria and choreic convulsion, on a third, into delirium, catalepsy, and somnambulism, on a fourth, into neuralgia. Convulsion and unconsciousness, recurring more or less frequently, are the grand features of epilepsy, but the former symptom we know may be often absent, and though the latter, in a greater or less degree, is much more constant, it is occasionally much attenuated or wanting. I make this statement on the authority of Trousseau and Sieveking, which my own experience tends to confirm. When the intervals are very long, several years for instance, the character of recurrence loses most of its value. This character is further weakened by the circumstance that the intervals are by no means always free from various morbid phenomena, similar in kind, but less in degree than those which constitute the paroxysm. Thus, the convulsive fits may come to be few and far between, but attacks of giddiness may be pretty frequent, and of somewhat long duration, and these mark the persistence of the disorder almost as much as the fits. Viewing this malady from its *phenomenal* side, I can only express my entire concurrence with what my friend, Dr. Sieveking, has said—"That several of the diseases that are commonly regarded as residing mainly in the nervous system merge into one another, and that the boundaries by which they would appear to be circumscribed by nosologists are by no means so uniformly to be traced." (Dr. Handfield Jones on "Functional Nervous Disorders," Art. "Epilepsy," p. 285.)

(To be continued.)

## ON THE TREATMENT OF FISTULOUS SINUSES BY MEANS OF THE ELASTIC LIGATURE.

By W. ALLINGHAM, F.R.C.S.,

Surgeon to St. Mark's Hospital, &c., &c.

(Continued from page 500.)

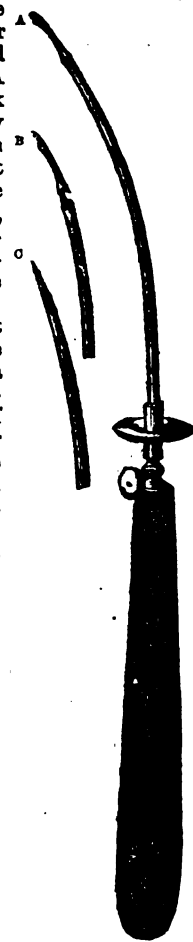
CASE XX.—G. H., *æt.* 39. Complete fistula; operation October 12; ligature came away 6th day; delicate phthisical man; bad cough, and night sweats; wound quite healed in twenty-one days, and health improved considerably.

It will be apparent from the above cases that I have not found the ligature separate quite so rapidly as Prof. Dittel and other gentlemen say it has in their experience—viz., in two, three, and four days. The shortest time in my cases has been four days, and the average in twenty-eight cases of fistula in ano was six and a half days. In none of my patients has there been sufficient pain to give rise to any constitutional disturbance; there was never any fever, and the increase of temperature at night was, as shown by the thermometer, most trivial; although some complained of pain during the first night they mostly slept fairly without any opiate.

I had employed the india-rubber ligature in very few cases only before I came to the conclusion, that if I intended operating frequently, or if ever the method were to become popular, other and better means must be devised for the introduction of the ligature through the fistula than those recommended and used by Prof. Dittel. The Professor described several ways of accomplishing the end in view, all of which appeared to me theoretically to be imperfect, and I found them, practically, clumsy, difficult of performance, tedious, and exceedingly painful to the patient. For complete fistula he used a probe with an eye near its point, which was to be passed from without to within, carrying the india-rubber and a strong thread, so that if the india-rubber broke in tying it, another ligature could be drawn by it through the sinus. Another method was to pass a tubular probe; through the tube a fine wire was to be introduced, and

the end fished down with the finger in the bowel; then the probe was to be withdrawn, so that the wire traversed the fistula, one end hanging from the outer opening, the other emerging from the anus; the india-rubber was then to be fastened to the wire, and drawn through the fistula. This was really a very difficult task to accomplish; sometimes the wire broke, and the probe had to be re-introduced, so it was found better to attach to the wire a piece of strong thin cord and draw that through the probe, then to fix the india-rubber, which in its turn was finally got into the desired position. I need scarcely say this is a very lengthy as well as painful mode of procedure, as the thin wire or cord cuts the inner opening of the fistula. When the fistula was not complete, Prof. Dittel recommends a director to be passed as far as possible up the sinus and along the groove; a sharp needle armed with the india-rubber was to be carried, and the bowel perforated, the ligature drawn from the eye of the needle by the finger, and the needle removed. This, I may remark, if the sinus runs far up the bowel, is by no means so simple of accomplishment as it may appear. Being, then, very dissatisfied with these methods of operating, I set myself to find some better and simpler plan, and on reflection, I came to the conclusion that the india-rubber could be drawn much more readily from within the rectum through the internal opening (or through an artificial perforation in the bowel) than by commencing to pass it from the external opening. This conviction led me to devise this simple instrument (which is shown in the wood-cut) for drawing a ligature through a fistulous sinus or beneath a tumour, and Messrs. Krohne and Sesemann have with much care and pains rendered it, in my opinion, practically quite perfect.

It consists, as will be seen, in the combination of a concealed hook or notch, with a blunt or sharp-pointed probe, as the case may require. A shows the curved probe with the hook concealed by the sliding canula, ready to be passed through a fistula, or, if a sharp point be substituted for a blunt one, under a tumour. B exhibits the instrument with the canula drawn back, and the previously concealed notch exposed, ready to receive the loop of india-rubber; when this is placed in the notch, the canula is pushed home, and the ligature is held so firmly that it cannot escape. Thus a double ligature can be readily drawn through a fistula or beneath a tumour. It is not necessary in fistula to see the hook, for if the finger, with a loop of india-rubber around it, be passed up the rectum, the loop can with perfect facility be directed over the end of the probe and caught in the notch quite unaided by vision. C shows the sharp-pointed instrument adapted to the same canula, so that only one handle and one canula are required to complete the double instrument. You see that with my instrument a double ligature is brought through the sinus; this is an advantage, especially if you tie the ligature, as in thus securing it you are very apt to break the india-rubber, and you have the second ligature to fall back upon: but I told you that I had abandoned the knot, and I now only use a small, soft-metal, oval ring; the two ends of the india-rubber are threaded through this, the rubber is pulled as tight as you require it, and the metal ring is then closed by a strong pair of forceps; this holds perfectly tightly, it never breaks the ligature, never gives way, and is done in a moment.



In conclusion, gentlemen, allow me to repeat that I do not consider the elastic ligature can ever supplant the knife in the treatment of fistulous sinuses. In complicated cases the knife must be depended upon mainly; but I am of opinion that the india-rubber is valuable in many cases as a substitute, and in others as an auxiliary, to the usually employed method of incision.

### INJURIOUS EFFECT OF THE CONTINUED EXHIBITION OF CHLORAL.

By FRANCIS M. LUTHER, M.D., M.R.C.S.E.

"NULLUM remedium quin solo tempestivo usu tale fiat" says the old adage—"Timely use alone makes any drug a remedy." Slaking a blazing fire is expedient to prolong its existence, but slaking the same fire when it is smouldering will only put it out. The remedy, then, will be, first to rake out the ashes, and after that to replenish the fuel. Chloral is a most valuable remedy for the earlier stages of many nervous maladies, accompanied by loss of sleep; but if its administration is too long continued—say, for months or years—hyperæsthesia will be succeeded by anæsthesia, morbid sensibility will give place to morbid dulness, and most of the phenomena of chronic intoxication will be produced. The writer is aware of a case where an entire family of adults took chloral for very many months. At first it was quickly absorbed, and doses of half a drachm produced sleep in less than half-an-hour. Ten or fifteen grains answered one individual. The artificial sleep lasted with some of the family four or five hours, when the drug seemed to be in a great degree eliminated from the system. If the patient was very irritable on going to bed, no further sleep was had that night; but if less so, the artificial sleep slid into the natural one. When the sleep was not sufficiently prolonged to allow of the chloral to be eliminated from the system, the phenomena evinced were precisely like intoxication. However, at first it did seem to be eliminated tolerably well, and was of decided service in calming nervous irritability, the effect varying very much with the individual. The doses exhibited were probably needlessly large. A large dose often failed in producing anything but a nightmare stupor, if the person went to bed angry, owing probably to the stomach containing acid, a small dose sufficing the same individual when the frame of mind was tranquil. After a time—how long I cannot say—each individual began to complain of a constant feeling of chilliness, owing probably to depressed nerve power, and also to the chloral hindering oxydation. Dyspepsia, to which three of the individuals were more or less previously subject, became terribly aggravated, and the fourth, who had enjoyed a good digestion, became likewise dyspeptic. Symptoms threatening imbecility and general paralysis showed in three, the one who escaped being the one who took but a very small dose (ten or fifteen grains). A hæmorrhage from bleeding piles, to which one had been subject for many years, and which was well borne while the loss was made good by well-digested food, now, when digestion was completely paralysed, became constant, and threatened to prove fatal. No purpura was observed, if it existed. Now, I do not mean to say that the chloral *alone* caused this terrible assemblage of symptoms. Manifold troubles, confinement to the house, and weak and excitable nervous systems, had all their share in producing it; but when, by a great effort, the chloral was abandoned by all, the improvement was so great after a while as to show how injurious its continued exhibition had been. The principal noxious effect of the chloral when exhibited too long is that it hinders elimination of the waste of the tissues, and so clogs the whole vital machine. In the malady alluded to, and in a less degree in all nervous diseases, there is excessive disintegration of nerve-tissue, and the blood is imperfectly oxydised; hence the indica-

tion for treatment is to lessen waste, to further elimination, and to increase oxydation. Avoid work beyond your strength, or responsibilities beyond your capacity; avoid all avoidable worries, or dismiss them from consideration when fairly attended to; avoid all unwholesome excitement, or dissipation; but seek the society of healthy, kindly, sensible people. Let your occupation be healthful, useful, and fairly remunerative in every sense of the word. Eliminate waste by taking frequent Turkish baths. Take purgatives occasionally if required. Favour oxydation by being as much in the fresh air as you can, without exhausting your strength. The Turkish bath will enable you to be much more in the fresh air than you otherwise could. Wear light clothing, to allow free access of air to the skin. This, too, the bath makes easy. Use a fair share of farinaceous and vegetable food with your diet, which taxes oxydation less than a purely animal diet; but whatever kind your food, eat it surrounded by cheerful influences, and it will agree with you; whereas both the stalled ox and the dinner of herbs will disagree if eaten in the midst of turmoil. Let those who have inherited a tendency to nervous maladies observe these rules, and they will have cause to congratulate themselves. As curative measures they will have more or less success, but are difficult, and can't be used simultaneously.

## Hospital Reports.

### ROYAL MOORFIELDS OPHTHALMIC HOSPITAL.

Dec. 4.—Mr. Couper operated on a case of glaucoma by iridectomy of left eye. The left eye was quite blind, and the right was gradually losing its vision. The patient was a man about 50 years of age, who had been a great smoker, and was sent to Mr. Couper by Dr. Drysdale, with the query whether the effect might have been produced by that cause. There was deep cupping noticed in the right eye.

The next case was one of caries of the nasal duct in a young girl, caused by swelling, and impeding of downflow of tears, and irritation, ensuing in abscess and caries of the bone around the sac. The abscess had first been opened in the cheek, and afterwards both lachrymal canaliculi were laid open and probes of increasing calibre passed. The girl was of strumous diathesis.

The third case was that of prolapse of the iris, occurring in a child, occasioned by a penknife, which had made an incised wound through the lower sclerotic at its junction with the cornea, in the left eye. Mr. Couper cut away the prolapsed iris and passed a suture through the incised edges, bringing them together.

### TYRONE INFIRMARY.

#### *Removal of Tumour by Esmarch's Apparatus.*

By EDWARD C. THOMPSON, M.B., Omagh.

MARGARET CAMPBELL, æt. 62, was admitted into the Tyrone Infirmary, suffering from a cancerous tumour of the leg. I considered this a favourable case for the employment of Esmarch's apparatus for bloodless operations. Accordingly the elastic bandage was applied, and the leg carefully bandaged from the foot to the knee, the tubing was then wound round the leg several times, and the bandage removed. The tumour was rapidly excised, without the loss of a single drop of blood, and with scarcely any pain. This case may appear to many of your readers hardly worth reporting; but where any new line of treatment is proposed, it seems to me desirable to accumulate as many cases as possible to determine its value.



## LECTURES ON HUMAN ANATOMY.

By WALTER RIVINGTON, M.S. Lond., F.R.C.S. Eng.,  
Surgeon to the London Hospital, and Lecturer on Anatomy at the  
London Hospital Medical College.

## LECTURE XI. (continued from page 112).

THE student who has mastered the account already given of the separate bones will have no difficulty in combining his knowledge and describing the THORAX AS A WHOLE. The points on the *Exterior* most worthy of observation are the forward and downward slope of the Sternum, the shape, size, and direction of the Ensiform Cartilage, the relative lengths and obliquity of the Ribs, the relative length and width of the Costal Cartilages and the Intercostal Spaces. These spaces are widest between the anterior parts of the Ribs. Below the third they narrow rapidly, and often become pointed as they approach the Sternum, and then contract again as they extend towards the Spine. They are filled by the Intercostal Muscles. The anterior wall formed by the Sternum is only a little more than half the length of the posterior formed by the Dorsal Vertebrae. Laterally, the walls are convex, and expand as we trace them from above downwards. Behind, the Necks of the Ribs appear rising above the Transverse Processes, and the Angles of the Ribs form an oblique line slanting from above downwards and outwards.

Observe how the backward curve of the Ribs brings them nearly to a level with the Spinous Processes, and enables the Human Body to lie comfortably on the back.

In the *Interior* we notice the prominence of the Bodies of the Dorsal Vertebrae in the middle line behind and a deep groove on each side of the Spine, extending outwards as far as the Angles of the Ribs. This groove is peculiar to man, and lodges the thick posterior border of the Lung. The dimensions of the Cavity at different parts should claim careful attention. In the well-formed adult the *transverse* diameter in the middle and lower part of the Thorax measures eight or nine inches, exceeds considerably the longest *antero-posterior* diameter, and is more than double the distance between the Sternum and the Dorsal Vertebrae, which averages four inches.

Of the two *Apertures* of the Thorax, the *superior* or *cervical* is much smaller than the *inferior* or *abdominal*. It is heart-shaped, and has its long diameter transverse. Like the first pair of Ribs which bound it laterally, it slopes from behind forwards and downwards. In front is the *Episternal Notch*, lying between the projecting sternal ends of the Clavicles, and behind is the first Dorsal Vertebra. Through this opening pass many important structures, the bare enumeration of which at this stage of your anatomical knowledge would not tend to your edification; but we may mention the Wind-pipe, or Trachea, the Food-pipe, or Oesophagus, the great Blood-vessels of the Head and Neck and Upper Limbs, and two nerves most essential to the preservation of life, by sustaining the breathing process—the Phrenic and Pneumogastric.

The upper ends, or apices of the Lungs, covered by their investing membranes—the Pleurae—project above the first Ribs into the root of the Neck, and are protected by a dome-like expansion of the cervical fascia, which may be said to close the superior aperture of the Thorax.

The *inferior aperture* is very large, and is bounded by an irregular margin. In front is the Ensiform Cartilage, separated on each side by a notch from a convex sloping edge formed by the conjoined cartilages of the Vertebro-Costal Ribs; lower down are the tips of the Vertebral Ribs; and behind is the inferior border of the Twelfth Rib, sloping upwards and inwards, and joining the Spine at an acute angle. The plane of the opening slopes from before downwards and backwards, and is occupied by the arched and inclined musculo-tendinous partition, or Diaphragm, which is found in all the Mammalia separating the Thorax from the Abdomen. The Diaphragm is composed of a central tendon, surrounded by muscular fibres. To the central tendon is fastened above the Aponeurotic Case, or Pericardium, which contains and protects the Heart; the lateral fleshy portions curve upwards into the cavity of the Thorax, and support the bases of the Lungs, to which they correspond accurately in shape and size. The narrow central region of the Thorax lying between the Sternum and the Spine is occupied by the Heart, the great Blood-vessels connected with the Heart, the Trachea, Oesophagus, and some important Nerves. It corresponds below to the central tendon of the Diaphragm, and undergoes comparatively slight alterations during the breathing process. The

lateral compartments of the Thorax are filled by the Lungs, are bounded below by the muscular fibres of the Diaphragm, and are very movable. The breathing process, or Respiration, for which the Thorax is specially adapted, consists of two parts—the admission of air into the Lungs, or Inspiration, and the expulsion of air from the Lungs, or Expiration. In the condition of rest the walls of the Thorax are in an intermediate state between dilatation and contraction, and when drawn either outwards or inwards will return to this state by virtue of their inherent Elasticity. The act of inspiration being performed in opposition both to the Elasticity of the Thorax and the pressure of the atmosphere, requires the expenditure of active muscular power; and hence it is that we find so many strong muscles having an inspiratory office attached to the walls of the Thorax. In an ordinary tranquil inspiration most of these muscles contract but slightly, if at all, and the Ribs are not altered in position much more than the twentieth of an inch, the abdominal movement, according to Dr. Sibson, being about one-third of an inch, and the diaphragm descending about half an inch; in an ordinary expiration the Elasticity of the walls of the Thorax and of the Lungs suffices to restore the Thorax to its middle state. In proportion as the inspiratory efforts increase more muscles are brought into action, and their contraction becomes more vehement; when expiration requires to be carried beyond the usual limits the active force of muscles capable of effecting compression of the parts must be exercised in opposition to the natural elasticity.

The Thorax is so admirably constructed as to be capable of enlargement in every dimension, and to allow the air to enter freely into all parts, even the most distant corners, of the Lungs. All its diameters—the vertical, the antero-posterior, and the transverse—are enlarged in inspiration. The *vertical capacity* of the Thorax is increased by the contraction of the muscular fibres of the Diaphragm, which straighten themselves and descend towards the Abdomen, pressing downwards the Abdominal Viscera, and causing air to enter into the lower parts of the Lungs. The *antero-posterior capacity* of the Thorax is increased by the elevation of the anterior ends of the Ribs and Costal Cartilages, a movement by which they are necessarily carried forwards as well as upwards, bearing the Sternum with them. The *transverse capacity* of the Thorax is increased by the rotation of the Ribs on an Axis drawn through the vertebral and sternal joints, such an Axis being analogous to the string attached to the two ends of a bow. The rotation of the Ribs and Cartilages on this Axis involves an elevation of their middle parts, and their removal from the median line of the Thorax and the Cartilages are said to undergo a torsion which calls into play an elastic reaction favourable to expiration. It is interesting to notice that there is an exact correspondence between the bulk of the Lungs at different parts and the mobility of the Ribs in kind and in degree. The narrow Apex of the Lung is in contact with the first Rib, which is the least oblique of the series, and simply moves upwards and downwards. As the Lung increases in size, in the same proportion do the Ribs increase in length, obliquity, and variety of movement, as far as the seventh, below which they again diminish. The eleventh and twelfth have simple upward and downward mobility. The Diaphragm ensures the necessary enlargement of the Thorax at the lower part. "The part," says Professor Humphry, "of the ribs between the third and the eighth which is most oblique, and which, by a given amount of movement, causes the greatest alteration in the size of the chest, is the hinder portion of the shaft, the part at and near the angle; and this part is in contact with the thick hinder border of the Lung, where a greater number of air-cells and blood-vessels are crowded together than in any other area of equal size, and where, accordingly, a larger proportion of the work of respiration is carried on." The Thorax has been ingeniously compared by South to a swing, or a series of swings, suspended from a firm support. The comparison holds better in quadrupeds, in whom the Spine, from which the Ribs depend like the rods of a common swing, is horizontal, and in whom the Sternum, or seat of the swing, is carried forwards and backwards by the swinging motion of the Ribs. In Man the Spine is vertical, and the analogy is not so apparent. The swing-like motion of the Ribs, having to be commenced in a direction contrary to gravity, a fixed point or fulcrum is stated by some physiologists to be needed towards which the Ribs can be drawn by the contraction of the Intercostal Muscles. Such a fulcrum is described as being afforded by the first pair of ribs, which is supported by strong muscles descending from the Vertebrae, and from which the rest of the Thorax may be regarded as

suspended. Fastened to the Sternum by very strong cartilages, they form a rigid ring, whose elevation would appear necessarily to involve the elevation of the rest of the bony framework. Thus, Haller regarded the first rib as a fixed point, towards which each of the other ribs was drawn in regular succession from above downwards. Dr. Hutchinson says: "The clavicles, shoulders, scapulae, and superior ribs are raised, the sternum advances, the infra-clavicular region swells remarkably upwards and outwards (particularly in females), like a rolling wave, the supra-clavicular region is raised, the whole apex of the thorax is rendered more obtuse, particularly the antero-posterior diameter. The lower ribs at their cartilaginous extremities spread outwards, increasing both the lateral and antero-posterior diameter of the base of the thorax, the cartilaginous (Gothic) arch formed by the junctions of the sixth, seventh, eighth, ninth, and tenth ribs below the sternum becomes more obtuse by their lateral motion, the abdominal space under this arch down to the umbilicus sinks inwards. There is an indescribable undulating roll produced by the consecutive action of the respective ribs, which always commences with a superior rib; in costal breathing a lower rib never moves first." Humphry observes: "In the normal expansion of the thorax the upper ribs are raised first, the others following in quick succession. In the female the commencement of this movement precedes that of the diaphragm by a very slight interval; whereas in the ordinary inspiration of the male the latter has the precedence." Other physiologists—and among them Majendie and Sibson—consider that all the ribs are moved at once; whilst "Sabatier stated that the ribs differed in the direction of their movement according to their position—the superior ribs moving upwards, the lower ribs downwards, the middle ribs outwards." I quote this from Dr. Ransome's paper on "The Respiratory Movements in Man," read before the Medico-Chirurgical Society in 1872. Dr. Ransome has invented an ingenious instrument, or stethometer, for measuring the movements of the chest; and as his conclusions differ from the accounts usually given and accepted, it will be as well to furnish you with an abstract of them. Before doing so, however, there are two points which I may premise. The first point is that three chief types of respiration have been described, according to the part of the Thorax which is most affected in the act. In the female, for instance, there is a marked expansion and contraction of the upper part of the Thorax, causing the bosom to rise and fall. It is most conspicuous in females on the stage, or in those who are under the influence of genuine emotional impulse. In infants up to the third year and in the aged of both sexes the Diaphragm is the chief agent in respiration, as may be seen by the motions of the Abdominal Walls. In cases of injury and disease of the Spinal Cord the Intercostal Muscles and other inspiratory muscles may be paralysed, and the Diaphragm left alone to perform the work of inspiration. In boys and men the lower Ribs may be observed to act more than the upper Ribs and the Diaphragm. These three types may be distinguished as feminine, or *superior costal*, masculine, or *inferior costal*, and infantile, or *abdominal* respiration. The second point is this: From the statements made by some authors (a) you might be led to conclude that the first Rib had little if any mobility, or, if capable of movement, yet remained immovable in respiration. On this doctrine of the immobility of the first Rib, "originally advanced by Haller," Ward, in his "Osteology," very truly remarks: "It is only necessary to move the Sternum up and down in the dead subject in order to be convinced, with Majendie, that the first Rib is not less movable than any other of the series." What the first Rib wants is the variety of movement possessed by the central Ribs, for while the first Rib can turn freely in a hinge-like manner at its vertebral joints, causing elevation of its anterior end, the longer Ribs appear to move in three ways: the rotation of the head and neck, causing elevation of their anterior ends, and rotation on the antero-posterior axis drawn through their vertebral and sternal joints, causing elevation of the middle of the shafts, have been already mentioned; a third movement is a movement of their anterior ends outwards, effected by the powerful inspiratory muscles which pull on the Sternum and the Ribs. In this movement the cartilages either slide forwards at their sternal joints or remain stationary. Another way in which the capacity of the chest might conceivably be enlarged would

be by the straightening of the Costal Cartilages. Whether any such movement actually occurs or could occur in strong inspiration I will not venture to decide.

Dr. Ransome's views shall be stated as far as possible in his own words: "In ordinary breathing the extent of movement of the ribs is very small, especially in the upper part of the chest, and it is very irregular in extent even in the same person. In both men and women a large part of the respiratory act in ordinary breathing is performed by the diaphragm—a fact remarked by Haller, who says: '*In naturali inspiratione solum movetur diaphragma, costae ad sensum immotis, nisi quod ima una vel altera septi motum sequantur.*' Little information, therefore, as to the action of the chest can be obtained by means of any stethometer except in deep or forced respiration." In the front of the chest in forced breathing the two chief motions are forwards and upwards. "The forward movement is the more equable of the two, and starts much more rapidly at first than the upward motion. In men the upward motion takes place chiefly at the latter part of the respiratory act, when the extraordinary muscles of respiration are brought into play. In most full-chested men the earliest portion of the expansive act seems to be accomplished by an increase of the ordinary action of the diaphragm, then the chest seems gradually to swell outwards in an ascending order from below upwards; the ribs are gradually raised by their special muscles, and the lower ribs are probably at the same time straightened at the anterior angle, between them and their costal cartilages; at last, for the final effort of inspiration, the head and shoulders are fixed, the spinal column is curved backwards, and all the muscles capable of producing upward movement of the bony cage are exerted to their utmost powers. In expiration after this effort the operation is reversed. The first to give way seems to be the diaphragm, the abdomen in spare subjects collapses, and then the ribs descend more gradually, beginning first with the upper ribs, and when a forced expiratory effort is required, the abdominal muscles are strongly contracted, the ribs, or even the scapulae, are pressed downwards, and the spine is pushed forwards so as to contract the cavity as much as possible. This seems to be the most frequent order of events, but it is important to remark that the action is undoubtedly greatly under the control of the will, and thus variations in the order of movement may be brought about by various causes—habit, disturbing emotion, suggestions from others, or antecedent ideas of what ought to take place. This fact may perhaps account for the different descriptions which have been given of the process by different observers." From this description it will be seen that Dr. Ransome's experience yields results which are directly opposed to the accounts of the most usual form of breathing in males given by Dr. Hutchinson and Dr. Humphry, and widely accepted as correct. The effect of inspiration and expiration on the spine, as stated by Dr. Ransome, is also directly at variance with the statements in esteemed text-books on Physiology. Thus, Huxley states: "In taking a deep inspiration the walls of the abdomen are relaxed, and become convex, the viscera being driven against them by the descent of the diaphragm—the spine is straightened, the head thrown back, and the shoulders outwards, so as to afford the greatest mechanical advantage to all the muscles which can elevate the ribs;" (a) whilst Dr. Ransome says that the spinal column is curved backwards in inspiration, and in expiration pushed forward, so as to contract the cavity as much as possible.

By the application of Dr. Burdon Sanderson's stetho-cardiograph during forced breathings, Dr. Ransome found that in men the fifth and sixth ribs rose before the second, whilst in females the difference in the time of rising was sometimes in favour of the upper ribs, sometimes of the lower. In tranquil breathing in the female there was apparent in every act of respiration a small precedence in the movement of the second rib.

The actual extent of the movements of the sternum and the ribs varied, according to Dr. Ransome's experiments, in different individuals, and in different regions of the chest. The sternum may be moved laterally as well as forwards and upwards. This may result from a natural difference in size between the two halves of the chest and the amount of muscular development, but it is especially obvious in cases of malformation, or disease of the thorax, congenital or acci-

(a) "The first rib is almost immovable, except in deep inspiration. The movement of the second rib is also not very extensive." (Gray's "Anatomy," p. 180.)

(a) "Elementary Lessons in Physiology." Huxley. Sixth edition, page 90.

dental. "As a general rule, the sternum moves forward, and sometimes upward, more freely than the clavicles, and the motions of the lower portion of the bone are greater than those of its upper end." I would suggest that the variation in the movements of the manubrium and gladiolus observed in different cases may be dependent upon the amount of mobility permitted at the upper sternal articulation, and upon the kind of joint existing there. A sliding joint with laxer ligaments than usual would permit the gladiolus to project further forwards than the manubrium. An ossified or rigid joint would entirely prevent such movement.

The motion of the *clavicles* is almost exclusively upward, and "they are especially affected by the final effort of breathing, when the extraordinary muscles are brought into action. The *ribs* at their anterior ends move more decidedly upward than the sternum," and their forward push, especially in the fifth and seventh, is very considerable. There is no regular increment of movement in the ribs as we descend from the upper to the lower, whilst there is abundant evidence of that independent action of the ribs which Dr. Hutchinson pointed out in certain chest diseases.

In a very large proportion of the male cases examined by Dr. Ransome, it was found that the movements on the right side of the chest exceeded those on the left, a fact which accords with the observations of Drs. Sibson, Wintrich, and Walshe, that in right-handed men the circumference of the right side may naturally exceed that of the left from one-half to three centimetres. The increased mobility on the right side is probably due to the greater force of the muscles on this side.

The movements of respiration in disease are on the whole much less extensive than those of health. In rare cases *increase* of movement, and especially of the upward movement, may be brought about by disease. This will also occur when, as Dr. Walshe says, "a muscular effort is made to overcome some obstruction seated low in the chest." The movements of individual ribs may be increased to compensate for decrease of movement of neighbouring ribs, and increased movement of one side of the chest may compensate for decreased mobility on the other.

*Decrease* of movements are exhibited to the greatest extent in emphysematous and asthmatic patients, the rigidity of the thorax in these disorders offering an almost equal impediment to all the movements of the ends of the ribs; but exaggerated costal motion will take place in ordinary enforced respiration.

One of the earliest indications of phthisis both in males and females is a diminution of movement over the part immediately affected, the forward push being more retarded than the upward rise.

The dimensions of the Thorax differ in the two sexes, and at different periods of life. In the female the Thorax is shorter and wider than in the male, allowing more room in the Abdomen for the exigencies of pregnancy and parturition. The foetal Thorax is remarkable for its great expanse inferiorly, due to the large size of the liver at this period of life; for its extreme shortness from above downwards, owing to the non-development of the Sternum; for its contraction from side to side, arising from the want of expansion of the lungs, and for its depth from before backwards, depending upon the large size of the Thymus gland and the greater comparative magnitude of the Heart. These several peculiarities give to the foetal chest a striking similarity to the same cavity in those animals where a want of the clavicle exists—viz., its flatness from side to side and its equally striking antero-posterior depth; but as the lungs expand and the Thymus gland becomes gradually atrophied, the Ribs by degrees assume their rounded form, and their angles begin to make their appearance, while the Sternum, hitherto so prominent, now commences to recede. The upper aperture, too, still continues of an oval shape, but its long measurement is from the same cause gradually changed, being no longer from before backwards but from side to side; while the inferior, owing to the diminished size of the liver, as contrasted with what it was at birth, is no longer conspicuous for its relatively vast circumference. (a) The increase in the transverse diameter of the chest continues throughout life. In children the chest walls move relatively to a greater extent than in adults. The bones are more mobile, and the cartilages are more elastic. As old age supervenes, the elasticity of the cartilages is impaired by advancing ossification, the joints grow rigid, a preternatural elevation of the ribs results from over-distension of the air-cells of the lungs,

which have lost their resiliency, and are unable adequately to expel the air in expiration, the movements of the osseo-cartilaginous hoops become more limited, and the business of respiration is mainly discharged by the Diaphragm. Old persons are peculiarly liable to suffer from that over-distension of the air-cells of the lungs which is called *Emphysema*. It causes the intercostal muscles to be pressed outwards and the chest to become barrel-shaped. Variations in the shape of the Thorax are of practical interest to the medical practitioner, because they indicate the state of the Lungs. Accustom yourselves to observe the shape and movements of the chest in the patients who come before you. Much important information may thus be gained. Mr. Ward observes on this subject: "The capacity of the thorax indicates the volume of the lungs, which usually bears a direct proportion to the development of the muscular system and the general vigour of the body. An expanded chest is the sign of sound health; a narrow, contracted chest, with a prominent sternum, indicates an inherent weakness of constitution, and is frequently accompanied by a consumptive tendency. Besides these congenital diversities in the shape of the thorax, the student will meet in the dissecting-room with others which are produced by artificial means during life. For an example of these we may refer to the distortion which is caused by wearing a tight bandage round the middle region of the body. This practice, which reduces the expanded lower circumference of the chest to two-thirds of its natural size, and impairs to a dangerous extent the functions of digestion and respiration, prevails among the females of several European nations, who prefer an abrupt indentation of this part of the body to the flowing curve of the natural outline. So highly, indeed, is this unsightly deformity esteemed, that the thorax is often subjected to compression at an early age, before the bones are firmly knit, in order the more effectually to force in the lower ribs on the abdominal viscera." (a)

The natural expansion of the lower part of the Thorax is specially needed to afford a firm attachment to the Diaphragm, and to counteract its tendency to draw inwards the cartilages of the six lower ribs. Forcibly to press them inwards is to imitate those deformities of the Thorax which result from a want of power in the muscles, which draw the lower ribs outwards, or from insufficient expansion of the Lungs in this region. Any cause which prevents air from entering the chest—obstruction from enlargement of Tonsils, disease of the Larynx or Lungs—may give rise to lateral depression, either temporary or permanent, or to the deformity commonly known as "chicken breast," or "pigeon breast." In this distortion the Sternum and the Costal Cartilages form an unnatural projection, the distance between the Sternum and Spine is increased, the Ribs are bent inwards at their junction with their Cartilages, and a furrow exists externally at the same point. The action of the Diaphragm tends to increase the deformity, and the curious phenomenon may be exhibited of contraction of the transverse capacity of the chest in inspiration and its enlargement in expiration.

(To be continued.)

## Transactions of Societies.

MEDICAL SOCIETY OF LONDON.

MONDAY, NOV. 30TH, 1874.

MR. J. ASTLEY BLOXAM exhibited a boy 10 years old having a dislocation of the patella, which had existed five years. There was no pain, only a slight feeling of weakness. The dislocation occurred every time the knee was flexed, reduction taking place with extension. This, Mr. Bloxam remarked, was contrary to what is said in books on the subject. The patient's family was generally affected with rickets.

The PRESIDENT stated that he had seen this patient at the Royal Free Hospital once, but had not been able to make up his mind with reference to the line of treatment to be adopted. He should like to hear the matter fully discussed by the Fellows.

MR. WM. ADAMS considered the case rare and interesting, being one of dislocation of the patella accompanied with

(a) "Human Anatomy," Ledwich, p. 25.

(a) Ward, "Human Osteology," p. 209.

only slight knock-knee, this lesion being generally associated with a marked degree of knock-knee. Dislocation of the patella seldom caused synovitis among children, because it was a slow process, and the result not of an accident, but of a loose condition of the ligaments and the surrounding tissues. He remembered an instance of a young gentleman who had both patellae dislocated, and was thus rendered lame. He recommended the knees to be kept extended in leather splints for one or two years, and he entirely recovered the use of his limbs, and was able to do without any appliance.

Mr. DAVY said he knew no cases so difficult to manage as these, and related a case of a man, *æt.* 40, on whom a splint was used for a whole year, and on its removal the deformity returned as badly as ever. Mr. Adams' mode of treatment was far more successful in the cases of children than in adults. At the Surgical Aid Society a laced knee-cap was generally made use of, though Mr. Davy considered that some mode of appliance by which the action of opposing muscles could be equally balanced was highly desirable.

Mr. BLOXAM also exhibited a patient, a woman, from whom he had removed the zygoma and styloid process in the extirpation of a cystic sarcoma. Nine years previously Mr. Hulke had excised half the lower jaw for the same disease. During the operation Mr. Bloxam had to tie the external carotid artery and the internal jugular vein, both of which were divided. He pointed out the peculiarity of the growth returning after such a lapse of time.

The PRESIDENT said the case exemplified the wonderful depth to which operations about the jaw might be carried. He recollected a case where the basilar process was reached. In this case of Mr. Bloxam's he was surprised that no septicaemia had taken place.

Mr. LEIBREICH remarked that the want of occlusion of the eye observable in this case was due to two causes—(1) the destruction of the seventh nerve and the orbicularis muscle; the eye could only be protected by turning it upwards; (2) the destruction of the fifth nerve, causing loss of sensation of the conjunctiva, followed by cornæitis and ulceration. There was no doubt that cataract had formed. He considered that the eye should be completely closed by stitches, forming an artificial symblepharon, as a means to prevent further destructive changes.

Mr. BLOXAM said cataract had formed, and extensive paralysis of the fifth and seventh nerves had taken place since the last operation.

Mr. HENRY SMITH then showed a specimen of excision of the knee-joint, remarkable for the fact that when first admitted the patient seemed to have little or nothing the matter with him. After a while he complained of great pain and starting of the limb, and Mr. Smith diagnosed ulceration of the cartilages of the knee-joint, operated, and obtained a very favourable result. His experience was against operating when the synovial membranes were extensively diseased; but only in cases where the cartilages and bone of the joint were only partially affected, and no constitutional symptoms present.

Mr. R. DAVY narrated seven cases of excision of the knee-joint operated on by him in the Westminster Hospital. In cases Nos. 4 and 7 sinuses yet existed. Necessarily shortening of the limb occurred in every case; but all the patients can walk with the aid of a high-heel boot, and the improvement in health and the reduction in deformity has been marked. The average stay in hospital of the patients has been 82 days, contrasting favourably with 208 days' stay of other excision cases (*vide* Holmes' "Surgery," vol. iii., page 822). The author found Esmarch's bandage a great boon in these operations. The transverse incision over the line of articulation is strongly enforced, the ends of the femur and tibia projecting (on forced flexion) like the muzzle of a double-barrelled gun. Especial care is given to the posterior ligament of the knee-joint, as it acts as a hinge to the two bones. The author slices off the ends of the bones until accuracy of adaptation results in a straight line. Sutures of stout silver wire are used, restrained by large shot, or lead tubes. No dressings whatever are requisite, but to brush the wound over with a weak solution of Condy's fluid, or carbolic acid, and attend to the temperature of the ward, and enforce surrounding cleanliness. The cases were illustrated by four of the children, who were present, also by casts, splints, splintage instruments, &c., and the bone removed at the operation. Mr. Davy attributed the success which had attended the results to Esmarch's

bloodless plan as adopted at Westminster Hospital to the simplicity of the after-treatment and to the stern enforcement of maintained rest.

The PRESIDENT, after alluding to the elaborate way in which Mr. Davy had worked out his cases, remarked that great confusion existed in the use of the terms excision and resection, and thus the difference between Mr. Holmes' and Mr. Davy's statistics might be explained. The term excision should only be applied when all the articular surfaces are carefully removed, and this was generally done only where grave disease of the joint existed. Many of Mr. Davy's operations were performed on cases of more or less deformity of the joint without serious disease.

Mr. BLOXAM alluded to the absence of death in Mr. Davy's cases, and called to mind 17 instances of excision, many of which resulted fatally. In some the operation was insufficient, and amputation had to be performed at a later date. It was not fair to compare these cases of joint deformity, where the symptoms were quiescent, with the usual run of hospital cases for which excision was performed.

Mr. HOLTHOUSE bore witness to the great skill of Mr. Davy as an operator, but thought, with the preceding speaker, that no comparison could be made between Mr. Holmes' and Mr. Davy's statistics. He disapproved of the after-treatment, especially the non-removal of the dressings, as the entire absence of cleanliness and the presence of heat and damp furnished all the elements of putridity, and surrounded the patient and the other sufferers with a most unhygienic atmosphere.

Mr. DAVY agreed that his were favourable cases, but thought they were of a character to demonstrate that the operation might be safely extended in practice. Mr. Holthouse's argument pointed, not to a discontinuance of his mode of dressing, but to greater care being exercised by the nurses and attendants in its application.

MONDAY, DEC. 7TH, 1874.

Dr. SANSOM, Vice-President, in the Chair.

Mr. ROYES showed for Mr. Henry Smith a boy born with a hare-lip, and cleft soft and hard palates, who had been operated on according to Sir Wm. Fergusson's plan with considerable success.

Mr. WM. ALLINGHAM exhibited

A SCIRRHOUS TUMOUR OF THE BREAST REMOVED FROM A WOMAN, *Æt.* 64, BY THE ELASTIC LIGATURE.

Needles had been introduced in the ligature applied, without pain and without anaesthetics. The process took seventeen days, was unaccompanied by any rise of temperature or other unfavourable symptom, and the patient made a complete recovery.

Mr. NAPIER inquired what kind of india-rubber was used.

Mr. THOMAS BRYANT condemned the use of the ligature in ordinary surgical practice, though in exceptional cases, as when the patient was hæmorrhagic, he did not object to it. The operation was tedious, lasting in this case seventeen days, when removal by the knife would have taken seventeen seconds; besides, it had the disadvantage of retaining a mass of almost putrid matter in close connection with the body, giving rise to the danger of septicæmia. It was true the patients did not complain of severe pain, but they underwent a considerable amount of chronic suffering.

Mr. CARTER asked why ether was not used. He was under the impression that its use was unattended with risk, and that no deaths had occurred from this cause.

Dr. THEODORE WILLIAMS was surprised at Mr. Carter's question. A reference to the Report of the Committee of the Medico-Chirurgical Society on Chloroform and Anaesthetics would show him that there had been several deaths from ether, and during the experiments on animals several dogs were killed by ether, as by chloroform, it being only a matter of dose to effect this result.

Dr. SANSOM said deaths from ether had been recorded by Trouseau and other authorities.

Mr. ALLINGHAM, in reply, said that the patient, being of a very delicate constitution, was unfitted for operation by the knife, while india-rubber was used, and the wound being freely dressed with carbolic oil and other antiseptics, no

putridity existed. He knew a medical man who had been operated on by both methods—knife and ligature—and he greatly preferred the latter as being without pain.

Dr. ROUTH then read a paper on

#### AN EPIDEMIC OF INFECTIOUS SORE-THROAT

which occurred in a public institution, and the probable causes of its production. After a proper tribute to Dr. Farquharson, who had preceded him last session on a subject analogous to the present, the author first gave a description of the institution and its sanitary appliances, where every means had been taken to secure ventilation and a good supply of water and food, and also the unexceptional cleanliness of the girls who were the inmates. Effective means were likewise always at hand in case of infectious disorders arising, and great care taken to prevent as far as possible their introduction. One case of typhoid fever occurred in October, 1873. The patient was removed to Middlesex Hospital, and ultimately died there. This was after the return of the inmates from the sea-side. On the introduction of a new matron, a little while after, the sore-throat disease broke out synchronously with measles and erysipelas. The appearance of measles was explained by the inmates occupying seats in an ill-ventilated church, where a school, then seriously affected with this epidemic, had been sitting in the morning. One of the erysipelas cases was subject to the disease; but all the others occurred when the throat epidemic was at its height. One died suddenly, with symptoms of sickness and exhaustion. The sore-throat epidemic (of which there were 46 cases) exhibited three types—simple cynanche, diphtheritic patches, and scarlet fever. When Dr. Routh left London, in September, all the sanitary appliances were reported, on inspection, to be in good order. The scarlet fever cases occurred when in the charge of Mr. Cheyne. Then, on inspection again being made, the water was found impure, and the filter, having been meddled with, was no longer effective; the drains in the garden were said to be offensive. One fact was noted—of the six matrons, it was the one who drank water only who was affected with severe cynanche. Of the six monitors, all escaped except one, and she also was a water-drinker. Dr. Routh then proceeded to show that other sources of infection had not been disregarded—(1) from visitors; (2) from infection at the sea-side. But on full inquiry being made, no such infection was traced. He concluded in urging for discussion—(1) Were the three diseases of the throat coexistent, but different affections, or the same disease? (2) Was the erysipelas produced by a similar miasm? (3) Can the sewage-tainted water have produced the disease, notably the scarlet-fever? (4) Had the typhoid fever, then prevailing in London, any influence in the production of this epidemic?

Dr. HAVILAND HALL was sure that bad sewage might give rise to various forms of disease, and cited an instance where peritonitis and erysipelas arose from an escape of sewer-gas in a public institution.

Dr. FARQUHARSON was of opinion that the first class of Dr. Routh's cases had nothing to do with the last class, and were quite distinct.

Mr. BRUDENELL CARTER thought the paper admirably demonstrated the perils of water-drinking. He always told his teetotal friends that, until they could guarantee to society a pure specimen of the commodity they so highly prized, instead of the present often dangerous mixture, they had better cease preaching the gospel of water.

Dr. CRISP, as a water-drinker, replied that human life was curtailed at least ten years by the use of alcohol. As illustrating the connection between diphtheria and sewage, he gave an instance of a house in Devonshire, where nine children died within a month from a species of diphtheria, quite unknown in the neighbourhood. On investigation the drainage of the house was found to pass into a pond, the water of which the children drank.

Mr. CHEYNE had charge of Dr. Routh's cases in his absence, and distinguished three forms of disease—(1) a pure scarlatinal case; (2) cases of sore-throat devoid of rash or high temperature; (3) cases of erysipelatous sore-throat. The drinking-water was the only cause of disease, which could be demonstrated, as no proof of contagion existed.

Dr. BUCHANAN, in support of Mr. Carter, asked Dr. Crisp if he ever knew of nine children dying of alcohol in one house, as occurred in the melancholy instance in Devonshire. He set a high value on Dr. Routh's careful and elaborate paper, and noticed that the gap of fourteen days which

intervened between the first and second batches of cases precluded any idea of infection. He had no doubt that both scarlatina and diphtheria had appeared in the Home, and that they prevailed together he was certain. Some of the cases had evidently nothing to do with either of these diseases, but must be classed with the erysipelas which appeared on the scene. He thought that a form of sore-throat of the same character as the well-known hospital sore-throat, but non-specific in kind, might and did arise from septic causes, such as the presence of putrid matter. As for the exact source of this epidemic, it appears to be traceable to sewage. The institution being flooded with sewer inhalations, instead of the ventilation described purifying the air, it probably assisted in freely diffusing the sewer-gas through the building. There being two methods of infection in this instance, the water and the air, it was difficult to distinguish which was the agent; but that the erysipelas might arise from septic matter dissolved in water ample evidence existed. In the epidemic outbreak at the Patriotic Asylum last autumn, erysipelas came on, followed by a curious form of peritonitis, which the late Dr. Anstie thought he traced to water-poison.

Dr. THEODORE WILLIAMS inquired the amount of cubic space allowed per head in the building, and whether natural ventilation was relied on, as, if it were, there was little chance of keeping a crowded institution pure and wholesome. He had no doubt of the existence of sore-throat, non-specific in character, and arising from septic causes, and had noticed instances of it, occurring chiefly among servants who occupied the basement of houses, and therefore were in closer proximity to the drains.

Dr. ROUTH, in reply, said that both the beginning and the ending of the epidemic were characterised by erysipelas, and that notwithstanding all that had been said—and he was much obliged to the Society for discussing the matter so thoroughly—he saw no case made out for attributing the disease to anything else than poisoned water. In conclusion, the treatment consisted of effervescing salines, gargles containing chloride of potash, and the local use of tannin.

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## The Medical Press and Circular.

"SALUS POPULI SUPREMA LEX."

WEDNESDAY, DECEMBER 16, 1874.

#### DR. LETHEBY AND HIS CRITICS.

It will be remembered by our readers that at a meeting of the Society of Medical Officers of Health of London, on the 17th of October last, Dr. Letheby, the President, delivered an address "On the Comparative Salubrity of Towns," wherein he showed that, from the immense migration which takes place of young adults from country parts into towns, the death-rate of the rural district where the young persons have been reared is unfairly augmented, while that of the towns is proportionately reduced.

In London, said Dr. Letheby, the death-rate of infants is so large that not more, and probably much less, than 60 out of every 100 born live to be 20 years old. At this rate, the 296,929 young adults who were added to the population of London during the last 20 years would, if they had been produced here, have cost 494,872 births, and 197,949 deaths, not one of which had appeared on the registers of the metropolis. An examination will show that nearly half the population of London are aliens, and have migrated into it from the provinces, perhaps at the rate of some 32,000 a year.

There are only, he added, 263 children per 1,000 of the population of London, as against 356 in all England; but the number of young persons, at from 15 to 35, is very large. In the City proper it amounts to 415 per 1,000; and is 360 per 1,000 in the whole metropolis, as against 335 in all England and Wales.

In the heart of the City the number of women at from 15 to 55 years of age amounts to 337 per 1,000 of its inhabitants, and in the rest of the metropolis it is 315 per 1,000, although for England and Wales it is only 280 per 1,000.

Up to the age of 10, said Dr. Letheby, and after the age of 25, in the case of males, and 35 in that of females, the death-rate in London is much greater than it is in all England; but at the intervening ages, from 10 to 25, and 10 to 35, the death-rate in London is much below the average, showing that persons of those ages go away from London when sick.

The gain to London is hence threefold. In the first place, the population is continually receiving a large number of adult lives without the vital cost of producing them; it gains by the substitution of such lives for the weak and ailing; it gains by the fusion of such lives of high value with the general mass of the population of comparatively low value.

Whenever the birth-rate, said Dr. Letheby, is high, the death-rate is high also. France, with a birth-rate of only 26.26 per 1,000 of her population, has a death-rate of only 23.63 per 1,000; but Austria, with a birth-rate of 39.86 per 1,000, has a death-rate of 30.34. In the south-western division of England the birth-rate is only 32 per 1,000, and the death-rate less than 20 per 1,000; in the north-western division the birth-rate is 39 per 1,000, and the death-rate 26.3. As a general fact, in England, it is found that, when the birth-rate is from 30 to 31 per 1,000, the death-rate is about 19; and when the birth-rate is about 35 to 37 per thousand, the death-rate averages 24.4.

We must say that we hold that Dr. Letheby was perfectly right in most of the conclusions he drew from the above figures we have quoted from his vigorous and convincing paper. The common-sense view of town life surely has always been that it is very much less healthful than life in the purer air of the country; and all medical men of observation must have frequently, like Dr. Letheby, been in the highest degree sceptical as to the supposed healthiness of London as proved by its death-rate.

Mr. Malthus found, in his well-known work, written near the commencement of this century, just what Dr. Letheby assumes as proved—namely, that wherever in any European State the birth-rate is very high, there will the death-rate be found very high. Norway and Switzer-

land—and in modern days, France—are the countries which have been often alluded to as examples of the fact that rapid multiplication results in a high death-rate, and Dr. Letheby deserves the best thanks of the medical profession for his protest against the vain-glorious boastings of the responsible writers of the Census Office, who would have the inhabitants of this civilised country believe that there is something quite providential in the over-crowding and squalor of our large centres of industry, over-peopled and miserable as they are.

We notice that Dr. Letheby's paper has drawn forth a very severe and warlike epistle from the gentleman who is the head of the statistical department in Somerset House. In a letter, signed George Graham, and directed to the secretaries of the Society of Medical Officers of Health, the Registrar-General observes that, as he understands that at the monthly meeting of the Society of Medical Officers of Health, on the 17th of October, the President stated that the reports published by his department were untrustworthy and ridiculous, and thought by some to be threatening to become a public nuisance; and as he furthermore learns that Mr. Hawkey, C.E., remarked that they were erroneous, not worth the paper they were written on, and full of mischievous fallacies, whilst not one dissentient voice was raised to contest the above statement, he, the Registrar-General, begs to have his name erased from the list of members of the society.

There is a final paragraph in the letter, to the effect that gratis copies of the Weekly Reports will no longer be supplied to a society which is presided over by Dr. Letheby, M.B., M.A.; but that any member of the society who does not agree with the President will be able to purchase the Reports for the sum of one penny at the Queen's printer's every week.

*Tantene animis cælestibus ire?* Why could not Major Graham listen to criticisms on public documents with more equanimity? He is not responsible for the figures in his reports, and only shares the fate of all authors, when he publishes (at the national expense) lucubrations of his own concerning political economy and other studies, which he takes the liberty, we must think, to evolve from the depths of his own consciousness. We have not the census of 1861 or of 1851 before us, but remember to have sighed bitterly to think that men placed in such important situations as he should have so misinterpreted the teachings of Ricardo, J. B. Say, Garnier, and the two Mills. It was a sad thought to us, that the country that had given birth to the greatest thinkers on political economy the world has ever known, from Adam Smith and Malthus down to J. S. Mill, should have as official teachers of the uneducated part of the nation men who seemed to set at nought all the experience of the best and ablest writers. Even the death-rate in London and all England would be more complete than it is if still-births were registered, which is done in France, Belgium, and Holland.

There was an article on the Registrar-General's side, in one of our medical contemporaries, on October 31st, which was followed by another in the same paper on November 7. In these articles, evidently inspired by the Registrar-General's office, it is conceded that the crude death-rate in towns understates the mortality. But, as far as we know, it adds, the understating does not exceed 3 or 4 per 1,000.



The article goes on to say, "this is not considerable, when we find the death-rate of 30 years (1841-70) varying from 15 in Glendale, Northumberland, to 24 in London, 27 in Birmingham, and 36 in Liverpool. Add 2 to Glendale, 3 to London, 3 to Birmingham, and 3 to Liverpool, and the mortality, corrected approximately so as to make it the mortality of a population normally constituted as to age and sex, becomes 17, 27, 30, and 39."

We cannot see on what principle 2 is to be added to Glendale and only 3 to London. According to *a priori* considerations, it would seem as if a very great number of units ought to be added to the corrected mortality of London to make it likely to be comparable with the health of a well-fed and high-class country district like Glendale, the land of the *Statesmen*, so often celebrated in the poems of Wordsworth.

In the second article on Dr. Letheby's paper, to which we have referred, there is this passage. "The pertinacity with which Dr. Letheby clings to his axiom that the birth-rate is the controlling element of the death-rate is worthy of a better cause, but is, at the same time, the strongest evidence of his reluctance to believe that he can be wrong. The proportion of infants under one year of age in a population varies, according to the birth-rate, only between about 25 to 35 in a population of 1,000; it follows, therefore, that, so far as this age is concerned, any influence upon the death-rate of the whole thousand which the birth-rate exercises is confined to the extreme differences of about 10 infants. All children under 5 years of age do not average more than 100 per 1,000, whereas the proportion of persons aged 60 and upwards averages about 126. As the rate of mortality among children under 5 years is lower than among persons aged 60 and upwards, it follows that the average rate in 1,000 depends fully as much—nay, more so—on the proportion of elderly persons as upon that of infants."

Can it be supposed by the writer of the above that the facts quoted by Dr. Letheby are met by such an argument as this. If so, let him only remember that, whenever the death-rate of infants is high, the death-rates at every age are high. An excellent example of the truth of this well-known law is to be found in the most useful tables published this year by Mr. Ansell, jun., Actuary to an Assurance Company.

Dr. Letheby is, we affirm, far nearer truth than the Registrar-General. It is, indeed, difficult to arrive at accurate conclusions from statistical facts. These facts require to be read by persons familiar with deductive reasoning on social questions; and neither Major Graham nor Dr. Farr seem hitherto to have grasped the salient points alluded to by Dr. Letheby, that town life is far more unhealthy than the death-rates show.

Reasoning from our own ordinary observation among the hospital population of London, we should say that the difference of health and longevity between Londoners and well-fed country folks must be at least some 20 years, if not more. The hosts of cases of rickets seen at our children's hospitals, the sad *cortège* of consumptives which haunt our Brompton Hospital, &c., are to our mind a clear proof that the picture given of the health of London as compared with a country side where wages are decent is immensely coloured.

Happy the land where towns are few and far between. Vigour and enjoyment of life flow from pure air and out-of-door employments. Let statistics be interpreted even by Dr. Farr and Major Graham, nothing will convince us to the contrary.

## THE ACTION OF DRUGS.

### VI.

WE have yet another column to consecrate to the actions of atropia and morphia as determined by the Edinburgh Committee. We proceed, therefore, to conclude this part of the subject by continuing our analysis from where we left off last week.

In the next experiment two and a half grains of meconate of morphia and 1-12th of a grain of sulphate of atropia were injected simultaneously, the respiration and cardiac pulsations being found to average—respirations 28 per minute, cardiac pulsations 132 per minute, while the pupil measured 7-50ths of an inch at the commencement; but after sixty minutes it was found (1) that the respirations had fallen from 23 to 16, and were deeper and more prolonged; (2) the cardiac pulsations had risen from 140 to 231, and were for a time very powerful, but afterwards became so weak as scarcely to be felt; and (3) the pupil became contracted, but not nearly to the same extent as would have been produced by the meconate of morphia alone. Professor Bennett thus sums up:—

"These results indicate a mutual action between the meconate of morphia and the sulphate of atropia. Meconate of morphia, when given alone, depresses both the cardiac pulsations and the respirations, and contracts the pupil. Sulphate of atropia, when given alone, slightly depresses the respirations, greatly accelerates the cardiac pulsations, and dilates the pupil. When both are given together, as in this experiment (Table xxxiii.), the respirations were reduced in frequency, indicating a preponderance in the effect of meconate of morphia; the cardiac pulsations were increased, indicating a stimulant action on the heart produced by the sulphate of atropia; and the pupil was slightly contracted, indicating that, with respect to this structure, there was nearly a balance as regards physiological effect between the two substances, but the influence was in favour of the meconate of morphia. It is also to be observed that the acceleration of the cardiac pulsations was not nearly so great when both substances were exhibited, as when sulphate of atropia, *even in smaller doses*, (*italics ours*), was given alone (see remarks on the physiological action of sulphate of atropia on dogs, *Journal*, October 24th, page 519).

"The dog in this experiment died at the end of three hours and a half. It gradually became more and more deeply comatose. There was no evidence of any delirium. Reflex action gradually became more and more feeble; the respiratory movements were fewer and more and more shallow; the cardiac pulsations became so weak as scarcely to be felt, but they were still rapid, and at last the animal died without any convulsive seizure. The lungs were much congested, and there was fluid in the pleura."

In Experiment 376 the same dose of morphia is given, but with a quarter of a grain of atropia. The animal died in six hours, and it was observed that the cardiac pulsations were for a longer time more rapid and stronger.

In Experiment 377 the same dose of morphia is given, and one-third of a grain of atropia. This animal died in eight and a half hours, and in the same condition of profound coma as in the last two experiments.

In Experiment 378, to a dog weighing 14 lbs., 2½ grains

of morphia and two-thirds of a grain of atropia were given, and this animal, after remaining in a state of stupor 6½ hours, slowly recovered; and ten days after, the dog now weighing 13½ lbs., was killed by the same dose of morphia. This was repeated on another dog, weighing 13½ lbs. (Experiment 379), with same result, viz, recovery after 2½ grains of morphia given with two-thirds of a grain of atropia, and death several days after when same dose of morphia was given alone. The report thus concludes:—

"It appears from the above experiments, that in dogs sulphate of atropia modifies the symptoms of poisoning by meconate of morphia, diminishes their intensity, and may even save life after a fatal dose of the latter. It is therefore decidedly antagonistic, but within a limited area. In man, sulphate of atropia would be too dangerous and uncertain a remedy to depend on in cases of poisoning by opium or any of its salts, but where the heart's action is greatly diminished it is directly indicated. (a)

Referring back, we find that Professor Bennett has already told us (Experiments 372, 373) that in rabbits the time of death seemed to be rather hastened than delayed when atropia is given with morphia, especially if the dose be large, although he concludes that atropia given after morphia may reduce the risk of death from cerebral or spinal congestion, by its power of contracting the blood-vessels, and may also stimulate the action of the heart through the sympathetic. Bearing this in mind, let us review the experiments on dogs recorded above.

In Experiment 375, a dog weighing 12 lbs. recovered after receiving two grains of morphia, and in Experiments 378 and 379, the dogs weighing respectively 14 lbs. and 13½ lbs., recovered after receiving 2½ grains of morphia with 2-3rds of a grain of atropia, and were killed ten days after by the same dose of morphia given alone (the weight of the dog in Experiment 378 having, however, fallen from 14 lbs. to 13 lbs.). It does not at all follow that the animals would not have recovered from the 2½ grains of morphia without the aid of the atropia, for, allowing weight to have any influence on the effect, we might naturally expect that, if a dog weighing 12 lbs. recovers after 2 grains, one weighing 14 lbs. might recover after 2½ grains. The fact of their being killed ten days after by the same dose is no satisfactory proof that 2½ grains of morphia is the minimum fatal dose for a dog weighing 14 lbs., because we are furnished with no experiments to show (as in the case of rabbits) what is the exact minimum fatal dose for a dog of that weight. The animals had been nearly killed ten days previous with morphia and atropia, and we cannot much wonder that they succumbed to the 2½ grains of morphia, especially when one had fallen off in weight from 14 lbs. to 13 lbs.; and referring back to Experiments 306 and 307, we see atropia does not tend to improve an animal's health, for in Experiment 306, 1-80th of a grain was given to a dog weighing 16 lbs., and ten days after the same animal only weighed 13½ lbs., and was out of condition. Such being the case, we are very reluctant to believe that in Experiments 378 and 379 the animals recovered after 2½ grains of morphia because 2-3rds of a grain of atropia was given, or that 2½ grains is the minimum fatal dose because they were killed ten days

after by morphia alone. We only regret that the experimenters did not ascertain the minimum fatal dose in this case in the same careful manner as they have in former cases.

We must say these experiments fail to shake our faith in Dr. John Harley's conclusion, and we would be very reluctant to depend on atropia alone as an antidote to opium or its salts, although we might avail ourselves of its stimulant action (in small doses) on the heart, and use it in conjunction with other means.

## Notes on Current Topics.

### Private Asylums in Ireland.

THE condition of private asylums in Ireland is the subject of comment by the inspectors in their recently issued report. On the 31st of November, 1872, they amounted to 645. At the like date in 1873, to 644. The admissions last year consisted of 88 males and 89 females. So far indicating the proximate rate of insanity between both sexes in the better classes of society. Taking the inmates of private asylums at the close of 1872, and those admitted in the subsequent twelvemonth, independent of Chancery patients and others elsewhere in private families, 822 were under treatment and subject to our official inspection and examination. Of these 126 were discharged—65 as cured, and 37 improved.

The recoveries speak favourably, being a full average on admissions and previous residents, at the same time that the mortality, not quite 4 per cent. on the whole under treatment, is little over that among the general public.

The inspectors say that with reference to the interior organisation of licensed houses, some institutions are materially in advance of others; and, indeed, it could not well be otherwise, when it is borne in mind that while in some establishments from £100 to £300 is allowed for patients, in others the stipends are not half so much, often too irregularly paid.

Looking to the general working of private licensed houses in this country during the past year, we are gratified at being enabled to report that not a single cause of complaint sufficient to need an official inquiry was preferred to the executive or to the inspectors; neither was there an instance of improper detention.

### Lead Amaurosis and Aneurism.

DR. THOMAS REID, of Glasgow, brought before the Glasgow Pathological and Clinical Society, recently, a man, aged 36, with blue line on the gums and with defective vision of left eye. There had been slight hemiplegia affecting the left side, after partial insensibility. Under iodide of potassium the vision was improved so that he could read Jäger No. 1, but the field of vision was still contracted. The ophthalmoscope showed the left disc to be oval, with the long axis vertical, pearly-white, with vessels diminished in calibre. There seems only to have been a supposition that this was a case of lead amaurosis. In the same society, Dr. Foulis, on Nov. 10, showed a specimen of aneurism opening into the spinal cord, re-

(a) In Experiments Nos. 376, 377, 378, and 379, the number of cardiac pulsations and respiratory movements were not counted, nor the pupil measured, as the object was to see whether or not life could be saved after a fatal dose of meconate of morphia.

moved from a patient of Dr. Gairdner's, aged 37. The history of the disease dated two years back; but the nervous affections were but of two months' duration. Shooting pains in the legs, followed by weakness, and ultimately complete paralysis and anæsthesia of the lower limbs, with retention of urine and obstinate constipation, were present. There was intense pains over the fifth and sixth dorsal spine, extending round to the cardiac region; a systolic *bruit* was audible at the apex of the heart; there was only a subfebrile elevation of temperature. Ultimately bed-sores came on, and difficulty in micturition. Whilst in hospital the bowels only acted under strong galvanic stimulation, and vomiting and retching were troublesome. At the autopsy the walls of the bladder were found in a state of slough, and the ureters and pelvis congested, and coated with muco-purulent matter. A small tumour was found on the right of the aorta, springing from its posterior part, opposite the fifth dorsal vertebra, partly occupied by coagula and laminated clot, and a few loose specula of bone. It had destroyed the body of the fourth and sixth dorsal vertebra, and extended into the spinal canal. The spinal cord was rather soft below the aneurism.

### The Expenditure of Irish District Lunatic Asylums.

The expenditure for the maintenance of Irish district asylums was larger during the last year by £13,181 than in the preceding—a circumstance admitting of a twofold explanation, the daily average of patients and servants in 1873 being 204 greater than in 1872, while the cost of many articles of consumption, but especially of coal, so largely used, was exceptionally high. If to the maintenance, £13,814 5s. 2d., presented for by grand juries at the Spring Assizes, and £14,931 3s. 7d. at the Summer Assizes, be added as the annual repayments for building advances from the Treasury, the full outlay levied off the country will have been £216,271 in the past year. The average cost of maintenance for the year under review was £25 10s. 2d., as compared with £23 16s. 7d. during the preceding year. The higher rate is clearly traceable to the large increase in the price of articles in daily consumption which took place.

### Preservation of Vegetable Infusions by Chloroform.

MR. J. B. BARNES has recently communicated some interesting experiments made in his laboratory upon the preservative effects of chloroform. He finds that infusions of calumba, chiretta, malt, and senna will keep good for a reasonable time by adding *five* minims of chloroform to every eight fluid ounces; and *three* minims will suffice to preserve the same quantity of infusion of roses. It will be easy to add chloroform to concentrated infusions, so that when diluted, each sixteen ounces may contain *ten* minims of chloroform. He also tried the effects upon two samples of mucilage of acacia, in the proportion of *one* and *two* minims respectively, to the fluid ounce; after six weeks both appeared to be as fresh as on the day they were made.

At the same time *four* minims of chloroform were added to four fluid ounces of mucilage of tragacanth, well agitated

and set aside, together with some of the same mucilage without chloroform, which, when tested immediately after it was prepared, proved neutral to litmus. These samples were again tested a few days after, and that containing chloroform was still neutral, whilst the other had become strongly acid, and quite unfit for use.

Mr. Barnes is of opinion that the preservative effects of chloroform act on the fermentable substance held in solution, which is strengthened by the property it possesses of preventing alcoholic fermentation.

Not only is the alcoholic fermentation prevented by chloroform, but when added in sufficient quantity to fresh milk, the lactic fermentation is also prevented. To two eight fluid ounces of fresh milk was added respectively, *ten* and *twenty* minims of chloroform: they were kept in a warm place, and occasionally agitated; after five days had elapsed, that containing *ten* minims had developed lactic acid in quantity sufficient to separate the caseine, whilst that containing *twenty* remained fresh and good. It might be found convenient to preserve milk in this manner, always taking care to boil it just before using, in order to drive off the chloroform.

The author, in conclusion, thinks it is very probable that solutions of acetate and citrate of ammonia, citric acid, lemon juice, and many other organic substances, may be preserved by chloroform.

### New Books for the Month in Medicine, Surgery, and Science.

(From the Bookseller.)

ARCHIVES of Ophthalmology and Otology. Edited and published in English and German by Profs. Knapp and Moos, M.D. Vol. IV. No. 1. New York. 7s. 6d.

Carpenter (W. B.), Mental Physiology. 2nd ed. 12s.

Davis (M. S.), Clinical Lectures on Various Important Diseases. 2nd ed. 9s.

Flint (A., jun.), The Physiology of Man. In 5 vols. Vol. V. New York. 22s.

Frey (Heinreich), The Histo-chemistry of Man. A Treatise on the Composition and Structure of the Human Body. Translated from the German by Arthur E. J. Barker. 21s.

Gunn (Dr. R. A.), Venereal Diseases. New York. 12s.

Hammond (W. A.), On Diseases of the Nervous System. New York. 18s.

Hartshorne (H.), Principles and Practice of Medicine. A Handy Book for Students. 4th ed. Philadelphia. 14s.

Hooker (W.), New Physiology. Text-book for Institutions of Learning. New York. 8s.

Medico-Chirurgical Transactions. Vol. LVII. 14s.

Minor (T. C.), Erysipelas and Child-bed Fever. Cincinnati. 10s.

Salter, Dental Pathology and Surgery. 18s.

Steiner (Johann), Children's Diseases: a Handbook for Practitioners and Students. Translated from the German. 12s. 6d.

Stille (A.), Therapeutics and Materia Medica. 4th ed. Philadelphia. 50s.

Thomas (G.), On the Diseases of Women. 4th ed. Philadelphia. 24s.

Transactions of the Clinical Society of London. Vol. VII. 8s. 6d.

Tyson (J.), Transactions of the Pathological Society of Philadelphia. Vol. IV. Philadelphia. 20s.

Valentin (W. G.), Qualitative Chemical Analysis. 3rd ed. 7s. 6d.

#### Natural History.

Angell (John), Animal Physiology, chiefly Human. Enlarged ed. 1s. 6d.

Duncan (P. Martin), Metamorphoses of Insects. 3rd ed. 7s. 6d.

Helps (Sir A.), Animals and their Masters. 4s. 6d.

Michelet (Jules), The Insect. 10s. 6d.

Packard, Insects of the Plant House. 1s. 6d.

Scammon (C. M.), The Marine Mammals of the North-Western Coast of North America. San Francisco. 60s.

Tryon (C. W., jun.), American Marine Conchology. Part 5. Philadelphia. 25s.

White (Gilbert), The Natural History and Antiquities of Selborne. Standard ed. 10s. 6d.

Wood (Rev. J. G.), Insects Abroad: a Popular Account of Foreign Insects. 21s.

Wood (Rev. J. G.), Trespassers: showing how the Inhabitants of Earth, Air, and Water are enabled to trespass on Domains not their own. 7s. 6d.

#### Science.

McCarthy, Tobacco and its Effects. 1s.

Becker (Bernard H.), Scientific London. 5s.

Clarke (E. H.), The Building of a Brain. Boston. 6s. 6d.

Ennis (J.), The Origin of the Stars, and the Causes of their Motions in their Light. 4th ed. New York. 10s.

Laming (R.), The Spirituality of Causation: a Scientific Hypothesis. 3s.

Marsh (G. P.), The Earth as Modified by Human Action. New York. 22s.

Marshall (Wm.), A Discourse on Professor Tyndall's Address at Belfast and the Relation between Science and Religion. 4d.

#### Small-pox among the Kalmuck Tartars.

NOWHERE, says the *Golos*, does variola make equal ravages as among the Tartars. When the disease bursts in the midst of a family, all the ties of blood and friendship are broken; often the Tartar, quitting then mother, wife, and children, mounts on horseback and flees his country. When the plague descends on a tent in winter, those it attacks are almost infallibly lost, abandoned as they are under a light tent to a cold of more than 25 degrees beneath zero. Sometimes it suffices only fifteen days to destroy a whole family. The only remedy they use is hot milk, diluted with water; the sole preservative is brandy. The Tartars almost never bury their dead; they drag them to some distance from the camp, and leave them on the sand. It is not rare to see a hungry dog carry off a leg, a foot, or an arm, to the tents, and devour it under the sight of the relatives. There are no doctors nor hospitals. There is merely to be mentioned the village of Jardik, on the portal route, with its miserable hospital of fifteen beds. There is, indeed, a medical man attached to the administration of the Kalmucks, far from the centre of the Steppes, at Astrakan; but this doctor's time is always occupied by violent deaths; he has not a moment left for ordinary diseases.

#### Lithotomy and Lithotrity.

DR. MALLEZ (Acad. de Méd., 1st Dec.) read recently a paper on operations by lithotomy and lithotrity, in which are contained the following conclusions: In casting a glance over the surgery of the urinary passages for the last ten years, we are struck with the greater comparative number of operations of lithotomy comparatively to those from 1840 to '50. Lithotrity by the natural passages has ceased to be the rule; lithotomy the exception. The two methods no longer are antagonistic, but complement each other. Persons no longer wait, to practise lithotomy, to be forced into it after useless and fruitless attempts at lithotrity, but recourse is at once had to it; and thus indications appear to be more numerous, and especially more precious, than they were twenty-five years ago. It is in obedience to this general tendency, as well as to the conviction drawn from his own experience, that Dr. Mallez has found occasion to make in two years twenty-four lithotomy operations—an enormous proportion even in an extensive practice, which brings also necessarily with it a more considerable number of lithotrities. Two cases were operated on by thermic galvano-cautery, and one died; two by perineal lithotrity, both of whom died; two by a mixed pre-rectal incision, combined with dilatation of the neck of the bladder; and eighteen by pre-rectal incision, without any other modification than that of the employment of a double cystotome of Amussat. All of these did well.

#### Vaginitis.

PROFESSOR T. D. FINCH (*Chicago Med. Ex.*, No. 22) says there are several varieties of vaginitis recognised—simple, specific, and granular. It may be simple or specific as regards its origin. The simple begins usually with swelling of the vulva and heat, burning, itching, and pains at vulvar extremity of the vagina, often around the urethra, with painful micturition. The inflammation may extend to all mucous canals along the urethra, lighting up a urethritis, perhaps to the bladder, giving a cystitis; along the vagina to cervix, giving endo-cervicitis, or to the cavity of the uterus, giving rise to endo-metritis; or even along the Fallopian tubes to the peritoneal cavity, kindling a fatal peritonitis.

The specific variety, or gonorrhœal vaginitis, differs very slightly from the simple. Very often you cannot tell the difference. Some authorities distinguish them by reason of the greater acuity of the symptoms manifested in the latter variety, the increased urethral inflammation, greater redness and pain in the parts, the mucous surface bleeding freely, and being more sensitive on examination; but be exceedingly careful in giving a positive diagnosis, for the two varieties resemble each other so closely that you will often be unable to detect the slightest difference, and by giving a hasty opinion you may do irreparable injury to an innocent party, and inflict a sting you can never extract.

A man may contract a urethritis from the acrid vaginal discharge occurring during menstruation, or from an endocervical discharge.

There is another variety of vaginitis, the follicular, generally the result of pregnancy, in which the mucous membrane is studded with little red points, that are the hyperæmic and hypertrophied papillæ.

Chronic vaginitis is simply a continuation of the acute, in which the severity of the symptoms is modified. The ordinary duration of an acute vaginitis is about two weeks; that of the chronic form is indefinite—may run on for a number of weeks, months, and occasionally lasts for a number of years. In a patient now under treatment for some two years but little benefit has accrued.

As regards treatment, the cause should be looked to first of all. If due to endo-metritis or vulvitis, these must first be cured. In the acute form, warm sitz baths, mucilaginous vaginal injections, and saline laxatives are useful, and anodynes if there be pain. He recommends an injection of four drachms of chlorate of potash, and ten grains of permanganate of potash, in sixteen ounces of water, of which a teacupful is to be injected morning and evening. Tampons of cotton-wool dipped in tannate of glycerine are useful, introduced every three days, taking care not to stain the linen with the tannin.

### Poisoned by Smoking.

In the *Journal des Connaissances Médicales* we read the following: M. Prof. Chevallier reports in his journal the case of a young man who made a wager that he could smoke twelve cigars, and forthwith went to work to execute his boast. At the eighth cigar he began to experience malaise, at the ninth he had chills and flushes, which phenomena were still more marked at the tenth. He refused to stop smoking, but went to his own house, attended with two of his friends. On arrival he had pains in the bowels and vomiting. A physician was called in, but he was unable to arrest the progress of the disease, and the patient died in the night. It is worthy of note that the subject of this observation was affected with cardiac hypertrophy.

### Animals as Motor Powers.

M. MAREY has laid before the French Association for the Advancement of Science some interesting observations on the employment of animals as motor powers, which we find noted in the *Philadelphia Reporter*. He proves, by means of a very elaborate instrument, that the movement of animated beings as motor powers takes place by jerks, whence results shocks, and consequently a waste of labour. As an illustration of this theory M. Marey cites the effort necessary to draw a burden behind one. If the necessary force be transmitted by means of a rigid or almost unextensible strap, for instance, of leather, the movement is jerky and more difficult than if it were transmitted by an elastic strap. It would, therefore, be better to attach horses to the shafts with india-rubber traces. He also gives as an illustration the manner in which boats are always dragged along the towing-paths by long ropes. It would be impossible, or at least very distressing, to employ short ones. The length of the rope, which alternately tightens or slackens by slow oscillations, has in this case the same effect as india-rubber.

### Primitive Surgery.

ACCORDING to a paper read by Dr. Prunières before the recent Prehistoric Congress at Stockholm, and quoted in the *Philadelphia Medical Times*, trephining was frequently practised during the prehistoric Stone Age. It is stated that the operating surgeons of that date, working with flint im-

plements, scraped the bone, layer by layer, until the dura mater was exposed. Skulls both of children and adults, with the orifices in some instances partially cicatrised, have been found in abundance. The crania have been submitted to M. Broca, and we suppose there is no room for doubt as to the fact that the trephining was in many instances performed during life, although skulls were also discovered from which the circular pieces had apparently been removed after death. It has likewise been observed that the fragments of bone have been replaced in the skull before interment, apparently with the intent that the person should appear in the next world in his entirety.

M. Prunières is of the opinion that the operation was practised for medical purposes, to give exit to a real or imaginary disease, and also that insane persons and epileptics, the friends of the gods of the old beliefs, were especially the subjects of it, and that the pieces of removed bone were used as charms and amulets.

### Cæsarian Section and the Elastic Suture.

A NEW case of Cæsarian section with the elastic suture in the walls of the uterus is reported in the *Gaz. Méd. de Paris*. The case terminated fatally, but union had already taken place by first intention, as in all the other cases. On autopsy, no trace of the line of union could be discovered. The uterus in this, as in the other more successful cases so far as life was concerned, was perfectly free from adhesions.

### The Taste of Human Flesh.

IN the Section of Anthropology during the Congress recently held at Lille, a long discussion was held on the subject of anthropophagy, which is quoted in *La France Médicale*. M. Broca made some remarks upon the different nature of the flesh of different races. He said that cannibals do not like the flesh of white people, which they find bitter and salty, and, moreover, which will not keep, notwithstanding its saltiness, for any length of time. The flesh of negroes, on the contrary, preserves itself a long time without decomposition, and cannibals love its taste.

### Radical Cure of Hydrocele by Electro-puncture.

DR. ERHARDT (*Memorabilien*, No. 8, 1874) has used electro-puncture four times successfully in cases of hydrocele. He made use of the interrupted current furnished by Gaiffe's apparatus. In the first case, where the fluid had only existed a short time, resorption took place in a few days; in other cases it required three weeks. In a man, fifty-two, who for eight years had suffered from hydrocele, puncture was frequently required, for the fluid reappeared every three weeks. Electro-puncture was then employed. Two thick very pointed needles were used in communication with the poles of Gaiffe's apparatus. These were thrust into the tumour at a distance of six centimetres, and three centimetres deep, so that they were in the fluid. The pain was quite bearable, and the current was changed in five minutes, and in another five minutes' time the needles were drawn out, when the needle from the negative pole appeared black and oxidised. In three weeks absorption had taken place permanently.

### Increase of Urea from Coffee and Tea.

DR. ROUX (*Chem. Central. Bl.*) asserts that the solid constituents of the urine are increased, and not lessened, by the use of tea and coffee. After regulated diet, when the solid constituents were found to amount to 33 grammes daily, he found that the solids did not depend on the quantity of water drank. In 944 c.c. of urine there was almost as much urea as in 2155 c.c. From 14th to 18th May his urine contained daily 36.18 grammes of urea. The 18th May, when coffee was taken, 41 grammes of urea were given off; and the same occurred when tea was taken.

### The Local Use of Emplastrum Hydrargyri and Unguent. Hydrargyri in Syphilis.

PROFESSOR DOUTRELEPOINT (*Pr. Arz.*, 1874) has treated the majority of his cases of syphilis locally with emplastrum hydrargyri with success. He states that the base of the indurated sore clears up rapidly under this treatment, and the scarring at its edges is hastened. Broad condylomata leave off giving off moisture, and heal up. Also, in the various syphilitic skin affections, when not too extensive, strips of the plaster laid over the surface cause a quicker disappearance. In a case of syphilitic lichen, the right forearm, which was more affected, was covered with emp. hydrarg., and the other not so, whilst the patient took the yellow iodide of mercury. In eight days the knots on the locally treated arm had disappeared, and were seen only as maculæ, whilst on the left arm there was scarcely any difference since the cure commenced. In tertiary forms of syphilis, even, is this treatment useful. Thus, it was followed by quick cure in a long-continued case of syphilitic lupus. Periosteal gummata heal rapidly, whether ulcerated or not. In several cases of ulcers of the ankle, which arose from destruction of subcutaneous gummata, binding with plaster or mercurial ointment sufficed to heal obstinate ulcerations quickly. Salivation was several times caused by absorption of the mercury.

### Dr. Charcot on Bright's Disease.

In a lecture on Bright's disease (*Progrès Méd.*, No. 47), Dr. Charcot speaks of chronic uræmia, which is especially noticed in cases of interstitial nephritis. Habitual dyspepsia is commonly witnessed, with vomiting at all times, the vomit containing sometimes uræa and carbonate of ammonia. Itching is frequently complained of. *Uræmic amaurosis* should be reserved for these cases of disturbance of vision in which no alteration can be noticed by the ophthalmoscope. This is rare compared to the cases where retinitis is observed. They are diagnosed by the rapidity of their coming on and rapid going off, and frequent returns.

Sometimes peculiar headache exists, accompanied by somnolence and persistence.

Subsultus tendinum is often met with, and sometimes true trembling of the limbs, and such symptoms are sometimes the first signs of chronic Bright's disease.

In some cases acute symptoms supervene at once, and apoplectic accidents may ensue, or epileptiform attacks. The skin has been seen in chronic interstitial nephritis to

be covered with a white pellicle, which has been found to consist of urea.

When the tension of the blood in the arteries becomes lessened by any disease of the heart, the accumulation of urea in the blood may become so rapid as at once to cause death.

Dr. Garrod has shown that in chronic gout the kidney almost constantly presents the alterations seen in interstitial nephritis, and asserts that the gouty kidney differs from chronic interstitial nephritis only in the presence in the papillary parts of the tubes of crystalline urate of soda. Granular nephritis is very common also among persons poisoned by lead, and gout in such patients is more rapid than in others. Opium and calomel are most dangerous in such persons.

### Artificial Butter.

DR. E. FERRAND (*La France Médicale*, No. 96) speaks of the new industry which in these days of extravagant prices of farm produce is arising in Paris and elsewhere. The best attempts made in France are according to the process of M. Mège, and are named "Margarine Mourières." Artificial butter is manufactured on an enormous scale at present in the United States. In 1871 a first patent was taken out at New York for the artificial manufacture of butter, and in the month of November of the same year Dr. La Perouse took out a more complex patent. His process consisted in treating 1,000 kilogrammes of raw meat with distilled water in which an alkaline bicarbonate was dissolved. Chloride of sodium was added, and the whole was boiled. When the boiling had gone on for some hours, the fatty matter separated from the cellular tissues, came to the surface, was collected, purified, and solidified. This was all; and the inventor need not have qualified this product by the name of butter.

Next came M. Mège-Mourières, who in 1873 took out a patent for the fabrication of butter of oleo-margarine. The base of the process consisted in the mechanical separation of the stearine by utilising the melting point of the oleo-margarine, which is not above 15°.55 c. This author having recognised that cows submitted to absolute starvation nevertheless continued to produce butter by this transformation of their own fat, tried nothing less than to produce artificially the modifications which take place in the mammary glands. Chemically he has succeeded; but the sense of taste hesitates. The first thing to be done is to neutralise the ferments, and for this the fat is plunged, as soon as the animal is killed, into a solution of sea-salt and sulphite of soda. It is then crushed in mills and submitted to artificial digestion at a temperature of 40° c. by means of a composition made with the half of a pig's stomach and hypophosphate of lime. When the fat has become perfectly liquid, and no masses are seen, more sea-salt is added, and it is poured into water at 28°-33, contained in wooden tubes. In these the mass of the stearine is deposited in the form of mammillated little masses in the midst of the liquid; it then suffices to place the latter in a centrifugal machine or hydro-extractor to separate completely the oleo-margarine from the stearine. According to the inventor, the oleo-margarine already forms an excellent butter for the kitchen; but he ameliorates the product in this way: he macerates together cream, bicar-



bonate of soda, and hashed cows' teats, and after having passed this mixture through a fine sieve, he adds it with the colouring matter to the margarine. This becomes then thick, and has the taste of cream; it is allowed to cool, passed into large cylinders to convert it into a homogeneous mass, and the product is then perfect. If the butter is to be long kept, we should replace the cream by water for macerating the teats.

It will thus be seen that there is nothing in the process of M. Mège contrary to hygiene. The only danger is that common fats may be cleverly disguised and sold under the name of butter.

If we may trust a patent of 1869, we may regenerate rancid butter by the following process: To 5 lbs. of melted butter 60 grammes of powdered alum are added, and this liquid is passed through a fine sieve, received in cold water; the butter is then worked with saltpetre, sugar, and the salts of milk, and gives an excellent product. Saffron and curcuma are the chief colouring matters made use of.

### Compression in Hydrarthrosis of Knee-joint.

DR. MAURICE LANGIER (*France Méd.*, No. 97) speaks of the rebellious nature of effusions into the knee-joint. Revulsives, such as blisters, circular compression, and operations, have been used. Blisters, which Velpeau praised so much, are not so useful without pressure in addition, in many cases. Compression alone remains as the best treatment. An india-rubber band is made use of on many occasions, but may prove too painful. M. Guyon has substituted a hollow splint behind filled with cotton-wool, and compression is made around this. The limb being placed in the hollow splint, layers of cotton-wool are applied over the knee, and form a thick layer. The circular bandage is rolled round the hollow splint, and thus pressure only acts on the anterior part of the knee. Pain and uneasiness are thus avoided. Several successful cases have been published by M. Guyon by this method. In one case a hydrarthrosis of eight days' standing was cured in a week; in another one, of fifty days' standing was cured in twenty-three days.

### Compulsory Fixing of Sanitary Salaries in Ireland.

WE are gratified to observe that the Irish Local Government Board, although tardily, and in a niggardly spirit, have exercised their power of fixing sanitary salaries by sealed order when the guardians have named inadequate payments. In the Uringford Union the sealed order fixes the salaries as follows:—Executive sanitary officer, £20; consulting do., £15; sanitary do., four, at £20 each; sub-officers, £10. It is probable that a similar order will immediately reach the Waterford Board, fixing the salaries, as in this case, at the maximum.

The special case in which the intervention of the Local Government Board has been most urgently demanded is that of the Dublin Corporation, who have deliberately and wilfully endeavoured to defeat the operation of the Act, and—by the mouth of their Public Health Committee—persistently resist all effectual sanitary reform. At a time when scarlatina had cost the community 600 lives in Dublin alone, and when any other

conclave would have been stirred to something like humanity and energy, the Public Health Committee has divided its time between throwing difficulties in the way of ardent sanitarians and voting large salaries to its *protégés*, the ex-policemen sanitary officers.

A flagrant money job could, and does, at any time, bring together a mob of eager corporators, while a quorum can be had with great difficulty and much canvassing to transact the most urgent city affairs.

### Misplaced Charity.

WE have more than once expressed our belief that much of the munificent charity dispensed in London was thoughtlessly given to unconsidered and even unworthy objects, and served rather to increase vice and hypocrisy than to alleviate the miseries of the deserving poor. This view is, unhappily, corroborated in a speech made at a recent meeting of the Hampstead Branch of the Charity Organisation Society by Mr. Ribton-Turner. He stated, as an example of the evil of indiscriminate alms-giving, that the anonymous "£1000 donor" had given to more than one sham charitable institution, and had, in one case, sent that sum to a society the sole manager of which was prosecuted for fraud and forgery. In another instance, where two donations were transmitted through a bank to a charitable institution, the bankers sent to the society for information regarding the character of the charity before the second donation was paid over. They were furnished with a report, which showed the institution in question to be a sham; but, having no means of communicating with the anonymous donor, they were unfortunately obliged to pay the contribution.

A FASHIONABLE ball, upon a grand scale, was given at Brighton on Thursday last, in aid of the funds for the Hospital for Sick Children.

A CONCERT was given at the Seymour Hall on Monday last, in aid of the infant nurseries and *crèches* of London. It was very well attended.

WE hope we are not premature in announcing the decline of the scarlatina epidemic in Dublin. The Registrar-General's report of this week records 10 deaths, as against 19 last week, and 29 of the previous period.

THE members of the Whittington Dramatic Society gave a performance on Thursday last, in aid of the National Dental Hospital of London. The theatre was crammed with a highly fashionable audience.

TWO of the foremost surgeons of Milan have recently been fined for not giving information concerning a duel which was attended with serious results. The plea of professional secrecy was brought forward, but the court refused to receive it.

THE second meeting of the Dublin Obstetrical Society was held in the College of Physicians on Saturday last, the 12th inst. 1. Dr. M'Clintock, "Morbid Retention of the Dead Ovum;" 2. Dr. A. V. Macan, "A Case of Intra-

uterine Amputation;" 3. Dr. T. More Madden, "Case of Metro-peritonitis following Vaginal Injection"; 4. Dr. Denham, "A Case of Extra-uterine Fœtation."

We learn that Dr. Lombe Atthill, whose name we mentioned in our last issue as that of a probable candidate for the Professorship of Midwifery in the Royal College of Surgeons in Ireland, will not seek the chair. Dr. Atthill has been recently elected to the Presidency of the Dublin Obstetrical Society, an honour which would of itself give him strong claims upon the College if he wished to seek the Professorship.

THE second meeting of the Surgical Society of Ireland took place on Friday evening last, in the Albert Hall of the Royal College of Surgeons, when the following communications were read: Mr. Corley, on "A Case of Parotid Tumour;" Mr. Thomson, on "A Case of Excision of the Knee for Bony Ankylosis with Deformity;" and Mr. H. G. Croly, on "The Removal of a Hair-pin from the Female Bladder."

A MEETING of the Medical Society of the College of Physicians of Ireland was held on Wednesday, the 9th inst., when the following communications were read: 1. Dr. C. E. Fitzgerald (by permission of the Council), "Further Remarks on the Ophthalmoscopic Diagnosis of Intracranial Tumour," with the exhibition of the specimen on which his former paper was based; 2. Dr. T. More Madden, "Notes on the Probable Employment of Anæsthetics in Ancient Times, especially in Scotland and Ireland;" 3. Dr. Henry Kennedy, V.P., "On a Point in the Respiration of the Healthy Lungs."

Our Philadelphia contemporaries give a terrible account of the state of the insane department of the hospital in that city. The *Philadelphia Reporter* justly denounces it as discreditable to the city, and unworthy of this community. There are at this time 1,105 insane persons crowded in the space allotted for only 600. The attendants cannot keep order among them. They are obliged to pack four or five in a cell at night, only intended for one person to occupy, and to make their condition worse, their arms are chained or strapped close to their bodies, and the restraint system in some of its coarsest expressions is rendered inevitable by the lack of sufficient room and attendants.

THE *American Journal of the Medical Sciences* contains a paper, by Dr. Richardson, of Pennsylvania, on the "Value of High Powers in the Diagnosis of Blood-Stains." He concludes that the results of his experiments prove, that since the red blood-globules of the pig, the ox, the red deer, the cat, the horse, the sheep, and the goat, are all so much smaller than even the ordinary minimum size of the human red disc, we are now able, by the aid of high powers of the microscope, under favourable circumstances, to positively distinguish stains produced by human blood from those caused by the blood of any of the animals just enumerated, and this even after the lapse of five years from the date of their primary production. This question is one eminently deserving the attention of English medical jurists and microscopic observers.

## Literature.

### FREE PHOSPHORUS IN MEDICINE. (a)

THE author of this work very correctly judges that, at the present time, when phosphorus is almost the universal panacea, a work that points out how some of the untoward accidents that have attended the administration of this drug may be avoided will be highly acceptable to the profession.

The use of free phosphorus as a nerve-restoring medicine certainly has more of reason and sense than the use of phosphoric acid and various phosphates and pyrophosphates, with a view to the regenerating action of these substances on exhausted nerve-tissue. The great practical difficulty has been to find a form in which to give phosphorus so that it shall not offend the stomach and shall be in an active unoxidised condition. The pharmacy of phosphorus is discussed by Dr. Thompson thoroughly and carefully. It is, says the author, important to bear in mind that phosphorus, when oxidised, is inert therapeutically, and oxidised to but a slight extent, it appears to acquire poisonous properties. Olive-oil, (b) much used as a solvent for phosphorus, will absorb from 600 to 800 times its volume of oxygen; if, therefore, oil be used that has been exposed to the air, solution of phosphorus made with such oil will contain a varying amount of free phosphorus, with hypophosphorous and phosphoric acids, and will be an uncertain and unsafe medicine. Such solvents as alcohol, ether, glycerine may absorb watery vapour, and thus the phosphorus becomes oxidised into hypophosphorous acid, which, it appears, may act as a powerful poison on the system (p. 16). If, therefore, for convenience in dispensing, a solution of phosphorus in alcohol with glycerine be used, care should be taken to preserve it from exposure to the air.

Solution of phosphorus in a vegetable oil, Dr. Thompson considers to be "a preparation liable to become too actively poisonous to retain a place among remedies intended for internal administration."

We cannot agree with the author as to the danger of phosphorus minutely subdivided. If this subdivision be effected under water, there is small risk of the phosphorus becoming oxidised, and when made up into pills with suet, these may be coated over with gelatine and kept in well-closed bottles. The phosphorus pills made by Savory and Moore, if thus kept, retain their phosphorence many months, and we have never seen any mishap from their administration; obviously it is well the pills should be freshly made.

The capsules of phosphorated oil made by Tisy, of Paris, have also seemed to us both safe and satisfactory.

Cod-liver oil Dr. Thompson finds a good solvent of phosphorus; the solution may lose all phosphoric odour, but yet retain full activity, as the case reported at page 27 proves.

Red, allotropic phosphorus Dr. Thompson dismisses with short notice, considering that whatever activity this body may possess is due to some amount of free phosphorus present in it.

The chapters on the dose and form of administration of phosphorus are written with much care, and after patient observation and experiment. The dangers of giving the medicine in solution in vegetable oil, already alluded to in previous chapters, are very conclusively illustrated by more than one instance of poisoning by phosphorated oil.

Hypophosphorous acid appears often to be the really poisonous agent, and yet this acid, in combination with

(a) "Free Phosphorus in Medicine, with special reference to its Use in Neuralgia," a Contribution to Materia Medica and Therapeutics. By J. Ashburton Thompson, Surgeon at King's Cross to the Great Northern Railway Company, Surgeon-Accoucheur to the Royal Maternity Charity, &c. London: H. K. Lewis, 136 Gower Street. 1874.

(b) In the British Pharmacopœia process for oleum phosphoratum it will be observed that the almond-oil is heated to 300° to expel oxygen.

soda or lime, may be given for any length of time without anything like poisonous effects being induced. Dr. Thompson does not say much as to the hypophosphite salts. The phosphide of zinc he commends as a good substitute for free phosphorus, especially if the dose of the phosphide be followed by some mildly acid drink or medicine to decompose the phosphide and set phosphorus free. The saturated alcoholic tincture of phosphorus seems a safe preparation, and the phosphorus pill of pulverised phosphorus made by Cox and Co., of Brighton, given on a full stomach, is a valuable agent in the treatment of neuralgia.

From one-twentieth to one-twelfth of a grain of phosphorus may be given in a pill with safety, and with every prospect of success, in the cure of neuralgia.

The chapters on the therapeutic uses of phosphorus, and the list of cases illustrating its curative action in neuralgia, are worth careful study. The use of the medicine in skin diseases, already noticed by Drs. Burgess, Broadbent, Thorowgood, and by Mr. Erasmus Wilson, is fully discussed.

As a record of past experience and present knowledge with regard to the therapeutic uses of free phosphorus, we regard Dr. Thompson's work as most valuable. For any one desirous of testing further, by clinical experience, the powers of free phosphorus, the formulæ of administration given, together with the cautions regarding dose and mode of exhibition, will render the work one of the greatest practical utility.

## CURRENT LITERATURE.

### NEW EDITIONS.

WE have on our table new editions of several excellent works, in several of which we notice distinct improvements. First of all, we may mention—

A "Pharmacopœia Companion" to the "Visiting List" has been issued by Messrs. Baillière, Tindall, and Cox. It cannot fail to be useful to many, as it consists of a table of the doses of all the medicines in the British Pharmacopœia, arranged by Dr. Bartley, of the Bristol Eye Hospital. Everyone should insert one of these useful companions in his Visiting List or Diary.

SQUIRE'S "Companion to the Pharmacopœia" (Churchill), which has now reached the tenth edition, and has made itself indispensable to both prescribers and dispensers. Mr. Squire has embodied in his work the Addendum to the British Pharmacopœia, and a number of remedies lately introduced into practice, such as croton chloral, guarana, and coca. He also furnishes a comparison of our official formulæ with those of foreign countries, and he has rewritten for this edition his Therapeutical Index, which is really very well done. His account of the various mineral waters will also be found very useful for reference.

GARROD'S "Materia Medica" has also been brought down to date by the introduction of the necessary additions in their proper places of all our new remedies, including those in the Addendum of the British Pharmacopœia. The new edition, edited by Dr. Buchanan, is worthy of its predecessors, and we believe this work will continue to be the favourite text-book on the subject, as it well deserves to be.

PEREIRA'S "Materia Medica" (Longmans), in its abridged form, has also been revised since the publication of the Addendum; and both students and practitioners who prefer this volume will find in it all they require. Its statements may be always relied upon, and it is a very handsome addition to any medical library.

RINGER'S "Therapeutics" (Lewis), is not exactly a work for students, but its success appears to indicate that a considerable number of readers are satisfied with it. In the new edition the author has inserted some of his recent papers, such as that on "Ipecacuanha Spray." Indeed,

the whole book may be regarded as a record of the author's conclusions interspersed in an abstract of Bucheim's work, on which it is acknowledged to be founded. We have previously mentioned some of the short comings of the book, and may be excused from repeating them. The author will, we fancy, be accused by the homœopaths of poaching on their preserves, as he has been before, but we do not recognise their right to the exclusive use of any remedy.

DR. H. BENNETT'S charming description of "Winter and Spring on the Shores of the Mediterranean (Churchill)" again comes to us fresh and full of life, at a season when fogs and wind and wet combine to make us almost envy the lot of those whose lines are cast in sunny places. Hundreds of our countrymen have already followed the swallows, and hundreds more are rushing southwards in search of health, gasping for the sunshine of which we get so little in these islands. Dr. Bennett continues faithful to Mentone, but he gives fair descriptions of the other health resorts he has visited; and as he takes a look at a new one, whenever he gets a chance, his volume grows in bulk with each succeeding edition. His style, however, continues as agreeable as ever, so that we read the new descriptions with as much pleasure as the old.

CLAY'S "Manual of Obstetric Medicine and Surgery" has reached a third edition. It is a very handy book, and well deserves the success it has attained.

## Correspondence.

### TYPHUS FEVER.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—It appears from the public papers that the disease called "typhus fever" has been clearing a place called "Over Darwen" of some of its surplus population; it has been set down as a "terrible scourge" wherever it has appeared, and no doubt is and will be until its true nature has been scientifically defined, and treated accordingly. I have in the columns of this journal repeatedly endeavoured to clear up this point by denying its existence as a substantive disease. The term fever is familiar to all but it simply means the skin heated above its normal temperature, and typhus means stupor, or a state of torpor or stupidity. Why this term has been applied to this disease I cannot tell, but its treatment will of course depend upon its fictitious name: as fever it is called, and as fever it will be treated; but where is this disease? The symptoms are pretty clearly defined. There is the rigor, the hot skin, the quick pulse, the headache, the loss of appetite, the foul dry tongue, the dry mouth and throat, the thirst, the high-coloured ammoniacal urine, with sediment, &c., &c., &c., these or most of them being present in a greater or less degree of violence, agreeably to the virulence of the poison, nature, habit, constitution, and sex of the patient. As the disease advances and becomes more alarming, with fetid hot breath, clammy skin, glassy eyes, and sinking pulse, &c., then the word typhus is employed. These are nearly all the symptoms: now, where is the disease?—in what part of the body is it located? I have asked these questions before; I now ask them again. Is it in an artery, vein, nerve, or lymphatic? Is it in the liver, kidneys, lungs, or any glandular organ? Is it in the skin or brain? If in the latter it would be called "brain fever." If it is in none of these, where can it be? To say that it is in the whole system would, I think, overleap the boundaries of prudence, because I have mentioned parts in which it is not. Not knowing where to locate it, and not knowing its exact nature, how can we treat it scientifically? I must now consider the blood as containing a miasmatic poison, absorbed through the lungs from the atmosphere, as being the cause of all these symptoms: when I look in a scientific point of view at that foul dry tongue, that dry arid throat and mouth, that urgent thirst, crying out for drink, drink, drink, I must ask, what state must the mucous coat of the œsophagus and stomach be in? Look at the urine, tongue, gums, &c., and ask what state must that blood be in from which there are such secretions? Here is Nature

herself pointing out the disease. Each particular poisonous miasma has a peculiar tendency—to wit, that which causes a determination of blood to the cuticle, and sometimes affecting the mucous membrane of the mouth and throat, is called scarlet fever; others produce measles, small-pox, &c., and this peculiar disease has a tendency to cause a rush of blood to the mucous coat, mouth, stomach, and bowels, as Nature has pointed out, and hence its name should be gastro-enteritis. Knowing this to be the case in a scientific point of view, we can fancy how it ought to be treated. The call for drink shows that the stomach must be as dry as the tongue, and cold water, containing the nitrate of potash, allays thirst sooner than any other fluid I know of, and in so doing answers the call of Nature admirably; the bowels must be kept free and the secretions carried off. The nervous system must be kept quiet by small doses of morphine or belladonna. Science points out that rest and sleep are just as necessary as fluid to allay thirst. What are febrile symptoms? The fact is, there is only one, and that is heat of skin; all the others depend upon it; and it is caused by increased arterial action. Look over the Pharmacopoeia and point out any medicine which will have a quicker and better effect upon the circulation than the nitrate of potash. James's powder, Dover's powder, fever powders are frequently given; but will any one of them lessen in any way the heart's action? I never lost a patient whose system I could place under the influence of mercury; but where that did not succeed the potash did. You will always find curious exceptions to facts and theories. We took a French slave once, and this disease was on board; one of the crew was very ill, and he managed to escape from his attendant and jumped overboard. When we got him back safely in his hammock the disease had disappeared. Another, from excessive loss of blood, had the same effect. These, I said, are exceptions to any mode of treatment. Nature and science both point out that the poisoned blood in these cases acts upon the mucous coat of the tongue, throat, stomach, and bowels, and we are bound to try and counteract its effects. Some men of talent will, perhaps, combat my views, but if they do, I hope it will be by stubborn facts. In my view, I think I have adduced facts which I think are patent to all, and of scientific form. This poison will force the blood into the muscular and other coats, and in violent cases into the peritoneum. Where there is the slightest epigastric or abdominal pain on pressure, there you will find increased arterial action, and counter-irritation by turpentine and hot flannels, or cantharides, will often be found of invaluable service; but you must guard against mistaking the pain of the one for the pain of the other. Climate does not alter this disease, for the symptoms will be the same in any climate; but there will be a difference in the virulence of the poison, and this will, of course, cause the symptoms to be more violent or urgent. Thirst is caused by the absence of water in the blood, from whatever cause; the vessels having none to secrete, the mucous coat becomes dry or parched, hence thirst. The state of the tongue, mouth, throat, and stomach will depend upon the condition of the blood, and I think Nature or science points it out very distinctly. The removal of a patient to a purer atmosphere, if possible, is always desirable; but where that is impossible, a current of air through a room or ward is highly desirable. When the skin has been burning hot, I have often relieved it, and also the thirst, by having the body sponged over with cold water, and the patient has invariably expressed and experienced great relief and satisfaction. I anxiously hope that my views may tend somewhat to the elucidation of this terrible malady.

I am, Sir, yours faithfully,

ALEXANDER LANE, M.D. R.N.

Douglas, Isle of Man, 20th Nov., 1874.

P.S.—I wish to be understood that particular poisons have a tendency to particular parts of the body—to wit, one poison, causes gout, another the disease called fever, others again, measles, small-pox, scarlatina, erysipelas, &c. &c., and each poison drives the blood to a different part of the body.

—A. LANE.

## Medical News.

University of London.—The following gentlemen passed the recent examination for Honours:—

B.S. EXAMINATION.

First Class.

Gould, Alfred Pearce (*Scholarship and Gold Medal*), University College.

Duncan, Peter Thomas (*Gold Medal*), University College.

Ulster Medical Society.—The opening meeting of this society was held in the rooms of the General Hospital on the 3rd inst. There was a good attendance of members to hear the inaugural address by the new president, Dr. Charles D. Purdon, "On the Past Medical Charities of Belfast as compared with the Present." After the delivery a vote of thanks was proposed by Dr. John Moore, and seconded by Dr. Stewart, and unanimously accorded to Dr. Purdon for his interesting address.

## Cleanings.

Differentiation of Intestinal Invagination.

DR. O. LEICHTENSTEIN, in an article on invagination (*Archiv. f. Prakt. Heilk.*, 4, 1873), refers to the following points for the differentiation of invagination of the small from that of the large intestine: 1. Invagination of the small intestine but rarely occurs during the first year of life, as also rarely during childhood in general. 2. In adults, the course of the attack in invagination of the ileum is more rapid, the phenomena more severe, than in ileo-caecal and colon invaginations. Chronic cases are rare in invaginations of the small intestine, more frequent in those of the ileo-caecum and colon. Severe symptoms of collapse occur more frequently in the beginning of the disease. 3. Muco-sanguinolent discharges are the rule in all invaginations, whatever their seat. Faecal evacuations, entirely normal in character (after preceding diarrhoea) were observed in ileo-caecal invaginations, once in a colon invagination, the patient being an adult. 4. Meteorism is a very variable symptom. It is usually absent in ileo-caecal invaginations. In invaginations of the descending colon it was frequently recognised as affecting the transverse colon; and subsequently spread over the whole abdomen. In invagination of the ileum it was occasionally found to be confined principally to the central abdominal region, with exemption of the lateral portions and epigastrium. 5. Tenesmus is rare in invagination of the ileum, frequent in that of the colon and ileo-caecum. 6. The tumour is usually absent in ileum invagination. Its seat in the centre of the hypogastrium speaks for this variety; when situated in the caecal region, especially when it remains stationary for some time, it indicates ileum or ileo-caecal invagination. The spread of the tumour, when occurring suddenly and corresponding to the course of the colon, speaks more for ileo-caecal, less for colon invagination, and excludes ileum invagination. The seat of the tumour in the left lateral portions of the abdomen would indicate ileo-caecal or colon invagination. The tumour can never be felt in the rectum, and prolapse through the latter never occurs in uncomplicated ileum invagination. Changes in the consistency, occurrence, and disappearance of the tumour were especially observed in the ileo-caecal invagination.—*New York Medical Journal*, Sept., 1874.

Trichinosis Produced by the Meat of a Dog.

In January, 1874, as reported in the *Correspondenz-Blatter des Allgem.*, a woman was admitted to the hospital in Langensalza, suffering from very grave symptoms, all pointing to the existence of trichinosis, and upon subjecting a small excised fragment of the deltoid muscle to the microscope, numerous encapsuled parasites were readily detected. This being the only instance of the disease known to have occurred in the vicinity at that time, the attempt was made to elucidate the source of the infection, which resulted in extracting from the patient the following extraordinary statement:—

For many weeks previous to her illness her extreme destitu-

tion had prevented her from purchasing any meat of any sort, nor had she been able to buy any fat, nor any other portion of a hog. Her meals were all prepared at home, her food consisting of dogs, cats, and also, during the season, marmots and foxes. The only meat which had been brought into the house for many weeks consisted of a pair of cats, the greater part of which was still left, having been smoked, and a dog which had been sent her for culinary purposes by a neighbour. This animal appeared very fat, and upon killing him she observed that a quantity of yellow fluid was contained in the thoracic and abdominal cavities, and that the meat, which was of a very pale colour, could be pressed together like a sponge.

President of the Royal College of Surgeons in Ireland ..... 541

## ORIGINAL COMMUNICATIONS.

What is Disease? By Edward Lane, M.A.,  
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become infected by consuming the flesh of the diseased dog. She was restored to health at the expiration of four months.

## Trophic Affections following Cerebral Lesions.

DR. A. MURON, in the *Gaz. Méd. de Paris*, September 26, 1874, calls attention to certain trophic affections hitherto undescribed, which may appear in the course of the evolution of cerebral lesions, particularly cerebral hæmorrhage. These affections are of two kinds—external and internal.

Under the term "external affections" Dr. M. includes lesions of the parotid characterised by suppurative inflammation, of the region of the buttocks characterised by a simple congestion of the integuments and subcutaneous cellular tissues, and of the knee characterised by a hypersecretion of synovial fluid.

Dr. M. cites, as belonging to this class, a case in which cerebral hæmorrhage into the right corpus striatum was followed six days later by severe inflammation of the parotid, going on to suppuration, which was only cut short by the death of the patient.

At the same time the region of the buttocks on the paralysed side was observed to be red and vascular, but without pustules or scars, while the corresponding knee was slightly tumefied, and there was probably a certain degree of hydrarthrosis.

Under the term "internal trophic affections" Dr. Muron includes congestion of the kidney of the affected size, and he gives several instances of this class of cases. The first was that of a patient who had suffered a bullet-wound of the brain, involving the middle of the left hemisphere and the third frontal convolution.

Post-mortem examination showed the right kidney considerably enlarged and deeply congested, but without any degeneration of the uriniferous tubules.

A second case is that of a patient 50 years of age, who had suffered two months from left hemiplegia.

Post-mortem examination showed the hæmorrhagic clot to have been formed at a point external and posterior to the corpus striatum. The left kidney was found to be at least one-fifth larger than the right, and much firmer in consistency, while very decided congestion was evidently present. That this congestion was recent was shown by the absence of granular fatty degeneration of the uriniferous tubules, while the cellules of the capillaries were more or less completely infiltrated with numerous pigment-granules. Other cases of a similar nature are referred to, and the paper is concluded by a description of a case of clinical interest, in which cerebral hæmorrhage followed by left hemiplegia without loss of intelligence was accompanied by temporary albuminuria. This latter disappeared with the gradual amelioration of the paralysis.

## NOTICES TO CORRESPONDENTS.

CORRESPONDENTS requiring a reply in this column are particularly requested to make use of a *distinctive signature or initials*, and avoid the practice of signing themselves "Reader," "Subscriber," "Old Subscriber," &c. Much confusion will be spared by attention to this rule.

MR. BEAN, Ashburton, is thanked for his complimentary note. The contents of the latter portion will receive attention.

DR. LEBEAU, Paris.—1. If it will save you trouble, you can make your subscription payable to our agents in Paris—Messrs. Baillière,

Rue des Ecoles de Médecine. 2. The first of Mr. Allingham's papers, "On Fistula," appeared in our issue of December 2nd. Dr. ADAMSON'S communication was received as we were going to press. It will have early attention. Dr. C. C.—A day too late.

## MEDICAL ETHICS.

DR. CAMPBELL BLACK writes to say:—In these days of chicane and Protean medical quackeries it is not surprising that the excellent and manly letter signed "Themus," which appeared in your impression of the 2nd inst., should have been allowed to pass without comment in the succeeding impression. For my own part I have received "at sundry times, and in divers manner" the friendly hint that on the subject of medical charities in particular, and medical ethics in general, I am believed to be the victim of a monomania, and I was naturally timid of confirming the impression so soon after the publication of my pamphlet "On Medical 'Charities.'" Perhaps I might do something to un-derceive my anxious friends if I indicate that there may be method in my madness, and with your kind permission I desire to refer as methodically as possible to the subject so ably treated by "Themus," and show him and others that this, the "second city" of the empire, distinguished as it is by piety and drunkenness, is no less distinguished by professional procedures of a most questionable nature. We, too, have our College of Physicians in the shape of a *qualifying body* termed the Faculty of Physicians and Surgeons.

Without stopping to examine or criticise the causes likely to give rise to a manifesto to regulate personal conduct, I simply remark that this body, the *Faculty of Physicians and Surgeons*, in a moment of pious exaltation, conceived, and was safely delivered of a code of ethics, including the following: "It is derogatory to the dignity of the profession to resort to public advertising or private cards, or handbills, inviting the attention of individuals affected with particular diseases, publicly offering advice and medicine to the poor gratis, or promising radical cures, or to publish cases and operations in non-medical prints. . . . These are the ordinary practices of empiricism, and are highly reprehensible in a regular practitioner. . . . There is no profession by the members of which eleemosynary services are more liberally dispensed than the medical, but justice requires that some limits should be placed to the performance of such offices. Poverty and professional brotherhood should always be recognised as presenting valid claims for professional services; but neither institutions endowed by the public or by rich individuals, societies for mutual benefit, for the insurance of lives, or for analogous purposes, nor any profession or occupation, can be admitted to possess such privilege."

Such being the terms in which *The Faculty* dictates not only to its own members and Fellows, but the smaller lights beyond its pale, it is instructive to inquire how this code of ethics is regarded by its framers. We can easily get at a solution of this question. There are nine special institutions in Glasgow, and everyone knows their object and mode of creation. . . . In fact, there is but one special institution in Glasgow which was not founded by one or more members of the body which framed the code of ethics above quoted. Further, the originating of special institutions being regarded now, in Glasgow, as the only means of making a practice, it is deemed essential by intending speculators in this department, in the first place, to join the Faculty, in order to be able to break its code of ethics in an honourable manner!! . . . The Faculty of Physicians has not legislated as to the advertising of books, as, I presume, it was never supposed that any of its Fellows were likely to err in this manner. I have seen a Fellow pretty high up put into a fine state of mind on being challenged as to the meaning of *ad eundem*! "Themus" may deplore the want of Latin and Greek; we would be content with decent English. For my part, I see no immorality whatever in the advertising of an honestly-written book, and of this each individual must judge for himself. The heinousness of all advertising I take to be misrepresentation, and, judged by this rule, special institutions as "charities" supported by the public are demoralising shams, hurtful to the profession, subversive of honesty, a fruitful source of vice, and unworthy of adoption by anyone affecting a spark of manliness. If, on the other hand, this be a means of making a practice, let members of the medical profession give this to be understood—eliminate the misrepresentation, and let us all be put on an equal footing, each man having his own clinique, as obtains on the Continent.

The Glasgow Faculty is very sensitive on the score of medical shop-keeping, yet it has two "Inspectors of Drugs!" A man who keeps open shop is not eligible for election to the Fellowship of the Faculty, no matter how much the conduct of the Fellows may tend to make this disagreeable though often necessary line of practice indispensable. A man finds himself in the position of having no fortune, the special institutions tempt the public to them, Fellows of Faculty start and maintain these institutions, take away the chances of making practice on the part of the beginner; to live he must open a shop, but then he becomes, *ipso facto*, disqualified for the Fellowship of the Faculty. More, there are two large drug halls (halls) in Glasgow. They were established by Fellows of Faculty, and in the foremost ranks of this body more than one, if I mistake not, having been President. The hair-wash of one, with his name duly paraded on the label (a late Professor at the University, I regret to say), is to be found in the drug-shops of Glasgow; the antibilious pills of another; and the corn-plaster of a third. What has "Themus" to say! For my part, I think that the man who requires a code of ethics to regulate his conduct in life is a despicable fellow; the medical profession has as many quacks within as without its ranks; it will never improve but commensurately with a better education on the part of the public.

## VACANCIES.

Royal College of Surgeons of Ireland. Professorship of Midwifery. (See Advt.)

West Riding Asylum, Wakefield. Clinical Assistant, to take notes of cases and to assist the medical officers generally. Board and apartments, but no salary. (See Advt.)

North-Eastern Hospital for Children, Hackney. House Surgeon Salary, £100, with furnished apartments, &c. (See Advt.)

Letterkenny Dispensary. Medical Officer. Applicants must address the Hon. Sec. (See Advt.)

Parish of St. James's, Westminster. Medical Officer of Health and Analyst. Salary, £300. Applications to the Vestry Clerk.

Evelina Hospital for Sick Children, Southwark. Physician. Honorary. Also a Medical Registrar. Salary, £20 per annum.  
Western Dispensary, Westminster. Resident Medical Officer. Salary, £105, with furnished rooms. Address the Secretary, 1 Artillery Row, London, S.W.

Lock Hospital (Male), London. House Surgeon, with board and furnished apartments. Full particulars of the Secretary.  
Hant's County Lunatic Asylum. Junior Assistant Medical Officer. Salary, £100, with board and lodgings. Address, Dr. Manley, at the Asylum.

Newcastle-on-Tyne Lunatic Asylum. Assistant Medical Officer. Salary, £100 per annum, with board and apartments. Forms of application to be obtained from the Superintendent.

Sheffield Public Hospital. House Surgeon. Salary, £100, with board and residence. Address, Dr. Hall, at the Hospital.

Chorlton Union. Resident and Assistant Resident Medical Officer. Salary, of the first, £250, and of Assistant, £125 per annum. Address the Clerk to the Guardians, Manchester.

#### APPOINTMENTS.

BRAMISH, W., M.D., Senior Physician to the Cork Fever Hospital.  
BELLIN, E., L.R.C.P.I., L.R.C.S.I., Surgeon to the Ditton-brook Iron Works, Ditton, near Warrington.

CLARKE, J., M.D., Superintendent Medical Officer of Health and Sanitary Officer for the Mountmellick Rural Sanitary District.

DEELEY, W., M.D., Resident Medical Officer to the Malton Dispensary.

DICKSON, J., M.B., L.R.C.S.Ed., Medical Officer for the Frodingham District of the Driffield Union, Yorkshire.

ETHERIDGE, G. E. F., L.R.C.P.Ed., M.R.C.S.E., Medical Officer for Froome-Bishop District of the Bromyard Union, Herefordshire.

GARDNER, F., M.R.C.S.E., Medical Officer and Public Vaccinator for No. 7 District of the Barnstaple Union.

LUTROF, H., L.R.C.P.L., M.R.C.S.E., Medical Officer for the Alveston District of the Stratford-on-Avon Union; also a Medical Officer to Stratford-on-Avon Medical Provident Institution.

MCCLURE, T., L.R.C.P.Ed., F.R.C.S.I., Medical Officer for No. 2 District of the Axbridge Union.

MACKENZIE, G. H., M.B., C.M., Assistant Surgeon to the Gateshead Dispensary.

MORRIS, H., M.R.C.S., Medical Officer to the Cottage Hospital, Sheffield.

MURCHISON, F., M.A., M.B., C.M., Assistant Medical Officer to the Crichton Royal Institution, Dumfries.

PALEY, W. E., M.R.C.S.E., House Surgeon to the Evelina Hospital for Sick Children, Southwark.

POWELL, W., M.R.C.S.E., Medical Officer for Bromyard District, and Medical Officer for the Workhouse of the Bromyard Union, Herefordshire.

PRICE, F. T., M.R.C.S.E., Resident Medical Officer to the St. George Dispensary, Mount Street, Grosvenor Square.

PRYNN, E. M., M.R.C.S.E., Medical Officer for No. 8. or Southern District of the Plymouth Incorporation of the Poor.

PURDON, E., L.R.C.P.Ed., L.F.P. & S. Glas., Assistant Medical Officer to the North Riding Lunatic Asylum, Clifton, Yorkshire.

SMITH, A. P., L.R.C.P.Ed., L.F.P. & S. Glas., Medical Officer for the Shawbury District of the Wem Union, Salop.

SUTTON, F., M.R.C.S.E., Medical Officer for the Willingham District of the Gainsborough Union.

THORPE, G. E. K., M.R.C.S., a Surgeon to the Public Hospital, Sheffield.

TRENNY, G. W., M.R.C.S.E., Medical Officer of Health for the Penryn Urban Sanitary District.

WEBSTER, H. W., L.R.C.P.Ed., M.R.C.S.E., Resident Medical Officer to the Woolwich Union Workhouse and Infirmary.

WHITE, J. B., M.D., C.M., Resident Medical Officer at the Hackney Union Infirmary, Hoxton.

#### Birth.

DAVSON.—On the 10th inst., at Dartmouth, the wife of F. Adams

DAVSON, M.D., of a son.

KELLY.—On the 4th inst., at 12 Plough Road, Rotherhithe, the wife of Bernard Kelly, M.D., of a son.

#### Marriages.

BROWN—HUGHES.—On the 3rd inst., at King's Kerswell, Devonshire.

Anthony Lennon Brown, L.R.C.P.I., Army Medical Staff, to Jane Maria, daughter of the late John Hughes, Esq.

LOMNER—RYNOLD.—On the 10th inst., at St. Mary's Church, Rotherhithe, S.E., R. H. Lomner, son of Deputy Surgeon-General Lomner, M.D., to Jane, daughter of J. Reynolds, of Rotherhithe.

#### Deaths.

DATE.—On the 29th Nov., William Date, M.R.C.S.E., of Cr. wkerne, aged 85.

FRESHFIELD.—On the 4th Dec., at the Crescent, London Road, Ipswich, Philip Wm. Freshfield, Surgeon, of Harwich, in his 60th year.

HUGHES.—On the 29th Nov., lost in the S.S. *La Plata*, off Ushant, John Rigby Hughes, M.B., of Guy's Hospital, and Ruicorn, Cheshire, aged 30.

KEL-ALL.—On the 3rd Dec., Henry Kelsall, M.D., of Redhill, Reigate, late Surgeon R.N., aged 72.

MATTHEW.—On the 3rd Dec., Alex. Crombie Matthew, M.R.C.S.E., of Albyn Place, Aberdeen.

PRICE.—On the 3rd Dec., John Cooke Price, M. & L.S.A.L., of Dovercourt, formerly of Stamford Hill, aged 75.

ROBINSON.—On the 27th Nov., at Robert Street Regent's Park, Andrew Ker Robinson, Surgeon, aged 32.

## Advertisements.

**PARTNERSHIP, £150.** For this small amount a SURGEON can become a PARTNER in a well-established practice, and have a certain amount of Income guaranteed and secured to him. Fine double-fronted shop, in a good thoroughfare, centrally situated. Profits, on the ready money alone taken over the counter, upwards of £8 per week. A Partner who could do the outdoor work would double the receipts, as this branch has never been attended to. Trial allowed. Messrs. DEBENHAM and CO., Auctioneers, 2 King's Road, Bedford Row, London, W.C.

**Ulster Medical Society.**—The opening meeting of this society was held in the rooms of the General Hospital on the 3rd inst. There was a good attendance of members to hear the inaugural address by the new president, Dr. Charles D. Purdon, "On the Past Medical Charities of Belfast as compared with the Present." After the delivery a vote of thanks was proposed by Dr. John Moore, and seconded by Dr. Stewart, and unanimously accorded to Dr. Purdon for his interesting

#### ROYAL COLLEGE OF SURGEONS IN IRELAND.

The President and Council hereby give notice that on Thursday, the 14th day of January, 1875, at the hour of 2 o'clock, they will proceed, according to the provisions of the Supplemental Charter, to elect a Professor of Midwifery in the room of Dr. Sawyer, resigned. Candidates are requested to lodge their applications, at the College on or before the 7th of January, 1875.

By order of the Council,

December 4th, 1874.

J. STANNUS HUGHES,

Secretary to the Council.

**NORTH-EASTERN HOSPITAL for CHILDREN, HACKNEY ROAD, E.—HOUSE-SURGEON** required for the above Institution. Salary, £100, with attendance, rooms, coals, and light. Double qualification preferred. Apply by letter, stating age, with Testimonials, &c., to the Secretary, Mr. J. W. Sibley.

#### INDIAN MEDICAL SERVICE.

**NOTICE is HEREBY GIVEN, that an EXAMINATION of CANDIDATES for Twenty Appointments as Surgeon in Her Majesty's Indian Medical Service will be held in London in February, 1-75.**

Copies of the Regulations for the Examination, together with information regarding Pay and Retiring Allowances of Indian Medical Officers, may be obtained on application at the Military Department, India Office, London, S.W.

A further notice will be issued when the exact date of examination has been fixed.

T. T. PEARS, Major-General, Military Secretary.

India Office, 1st December, 1874

**UNIVERSITY OF LONDON.**—The following are the Dates at which the several EXAMINATIONS in the UNIVERSITY of LONDON for the year 1875 will commence:—

Matriculation.—Monday, January 11, and Monday, June 23.

Bachelor of Arts.—First B.A., Monday, July 19.

Second B.A., Monday, October 25.

Master of Arts.—Branch I., Monday, June 7.

Branch II., Monday, June 14.

Branch III., Monday, June 21.

Doctor of Literature.—First D.Lit., Monday, June 7.

Second D.Lit., Tuesday, October 12.

Scriptural Examinations.—Tuesday, November 23.

Bachelor of Science.—First B.Sc., Monday, July 19.

Second B.Sc., Monday, October 25.

Doctor of Science.—Within the first twenty-one days of June.

Bachelor of Laws.—First LL.B., } Wednesday, January 6.

Second LL.B., }

Doctor of Laws.—Thursday, January 14.

Bachelor of Medicine.—Preliminary Scientific, Monday, July 19.

First M.B., Monday, July 26.

Second M.B., Monday, November 1.

Bachelor of Surgery.—Tuesday, November 23.

Master in Surgery.—Monday, November 22.

Doctor of Medicine.—Monday, November 22.

Examination for Women.—Monday, May 3.

The Regulations relating to the above Examinations and Degrees may be obtained on application to "The Registrar of the University of London, Burlington Gardens, London, W."

December 10, 1874.

WILLIAM B. CARPENTER, M.D.,  
Registrar.

**LETTERKENNY DISPENSARY.**—The Committee of the above Dispensary will meet on Tuesday, the 20th inst., for the purpose of electing a properly qualified person to succeed Dr. Gen. E. Carré, who has accepted the appointment of Resident Medical Superintendent of the Castlebar Lunatic Asylum. The following appointments were held by Dr. Carré:—viz.: Physician to the Donegal District Asylum; Medical Officer Letterkenny Fever Hospital; Surgeon to the Donegal Artillery, &c. Candidates for the Dispensary may forward their Applications and Testimonials to

Lisnennan, Letterkenny  
Dec. 12th 1874.

ROBERT RAMSAY, Hon. Sec.



# The Medical Press & Circular.

"SALUS POPULI SUPREMA LEX."

WEDNESDAY, DECEMBER 23, 1874.

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## Introductory Address

DELIVERED AT THE  
OPENING MEETING OF THE  
SURGICAL SOCIETY OF IRELAND.

By JOLIFFE TUFNELL, F.R.C.S.,  
President of the Royal College of Surgeons in Ireland.

As President of the Royal College of Surgeons in Ireland, I have the honour of being (*ex officio*) Chairman of this Society, and in that capacity it becomes my privilege to address you at the commencement of the present session. Before doing so, however, I would beg to express the pride and satisfaction which I feel at being raised to this honourable position; and let the first words that I give utterance to from this chair, be those of thanks to my brother Fellows who by their kind votes have conferred this honour upon me—for I do indeed feel it to be such. The promotion to the chair of the Royal College of Surgeons in Ireland must be gratifying to any man, for, if not possible to be of those great ones who have held the Presidentship, and passed away, and gone, still, it is an honour for any individual to have his name placed upon the same roll, and even to this extent to be associated with them. For this privilege I feel very grateful, and would again so express myself to every Fellow of the College. Now, in reference to the constitution of this Society (the 44th session of which we are met here to inaugurate this evening), the purposes for which it was founded, the construction of its governing body, the duties of the President and those honorary officers the Secretaries and the Publication Committee, by whose labours conjointly the hard work of the Society is performed, these have already upon previous occasions been so ably and fully brought forward that there is very little left for me to say. My observations, therefore, will be brief, and addressed solely to those junior members who may perhaps for the first time be

sitting here to-night. To them I would say that this Society was founded in 1831, for the purposes of forwarding the interests and progress of medical science in general, and although termed "surgical," in consequence of being in connection with the College of Surgeons, its appellation would more fitly be that of the Medico-Chirurgical Society of Ireland, since it embraces every single subject pertaining or allied to the practice of our profession. By its rules human and comparative anatomy, pathology and physiology, materia medica and pharmacy, botany and zoology, chemistry, meteorology and natural philosophy, geology and mineralogy, medical jurisprudence, hygiene and State medicine and statistics, in addition to midwifery, medicine and surgery, are one and all eligible to be brought before it—a broad basis indeed, admitting everything, and excluding nothing that can possibly tend to the advancement of professional knowledge. So established, let us for one moment refer back to those who were the originators of this Society. In doing so we shall find them to have been Benjamin Alcock, Robert Adams, Thomas Beatty, Charles Benson, Richard Carmichael, Fleetwood Churchill, Dominick Corrigan, Philip Crampton, James Cusack, Andrew Ellis, Robert Graves, William Hargrave, Robert Harrison, John Hart, John Houston, Arthur Jacob, John Kirby, Ephraim Macdowell, Rawdon Macnamara, Henry Maunsell, William Montgomery, James O'Beirne, Richard O'Reilly, William Henry Porter, Alexander Reade, and though last, not least, Robert Williams. An institution thus founded and fostered could not but succeed. To you who have known these men personally, and to you who know them by reputation and name, I put the question—if greater intellect, if a more dignified array, ever graced the muster-roll of any embryo society? The working of this Society has been entrusted from its foundation to a Council consisting of twenty-one Fellows of the College. Those who had been originally nominated made arrangements for filling up such vacancies as should from time to time occur by selecting from among the Fellows of the College those who had practically manifested their interest in the welfare of the Society by their valuable contributions, the names of all such having been previously subjected to the Council of

the College for approval. This power of election to Council has recently been altered, and by the last bye-laws, all members of this Society, being Fellows of the College of Physicians or of Surgeons in Ireland, have the right of voting for Council, such voting being by ballot early in November of each year. To this Council of twenty-one members, so selected, all power is entrusted for the regulation and management of the Society, subject to the approval of the Council of the College. This point must not be forgotten—viz., that the Council of this Society is under the control of the Council of the College. Associated with the Council of the Society are the President and the Vice-President of the College (*ex officio*). It is the duty and privilege of one or other of these to take the chair and preside over every meeting, and in their absence the senior member of Council of the Society present is entitled to preside. Now, the duty devolving upon the Chairman is one of very great responsibility in connection with the subject of debate. The power of discussion allowed by the rules of this Society is, I consider, not only most desirable, but really essential to its success, for the remarks elicited in debates are oftentimes the exponents of long practice and great experience. The power confided to the chair in every society is great, but in this one paramount; for to the President is deputed authority to stop at any moment that he thinks fit the discussion then proceeding, and to press on to other business—a good power so long as it is judiciously used—an unjust and tyrannous autocracy if abused. I can only say that during the coming session, although I may act with firmness, I trust that it will be with fairness to every speaker that addresses the chair, for we must never forget that it is to the chair, and the case under discussion, that one should speak, and not personally against the advocate of an opposite view from that of the speaker. I can only once more say that I will (as Chairman) endeavour to be as free from partiality, favour, or affection, as mortal can. Associated with the President and Council are the Honorary Secretaries and the Publication Committee. For the Secretaries I would say a few words, in the hope of gaining the cordial co-operation of the members of the Society, because upon the energy and exertions of the Secretaries does the success of each meeting entirely depend. Do not for one moment suppose that the labour of the Secretaries consists merely in reading out the proceedings of the former evening, or at the meeting of Council taking notes of the doings of the day. No, the Secretary has often to exert himself to a degree that no one can know, unless he has (as I have done) acted as Secretary for some time. Gentlemen will often put down their names as contributors of papers for a certain evening, and that to the exclusion of others, and then at the eleventh hour begin each one to excuse himself, and on the afternoon of the very day write to say that he cannot possibly attend—a sudden call to the country in one instance, a severe cold in another, illness in the family will prevent the third from bringing forward his contribution that evening, leaving to the Secretary at perhaps 5 or 6 o'clock p.m., the pleasant task of driving from house to house for substituted material. This should not be. When once a member has put down his name for a certain date, nothing whatever but an unavoidable cause should prevent the fulfilment of his engagement. He should regard it as a debt of honour due to the Society, which must be paid. This failing upon the part of members, I must say, has been less frequent of late, since the subject-matter to be brought forward, together with the name of the author, has been posted in the hall of the College, and announcement of the same been sent by circular to those living in and around the metropolis. This is but one of the labours that fall upon the Secretary, yet one, I think, sufficiently onerous to excuse me for mentioning it from the chair. Another adjunct to the efficient working of the Society, and a most necessary one, is the Publication Committee, *quorum pars magna fui* for I know not how many years. Now, gentlemen who take part in discussions but little know the difficulty that devolves upon the members of this Committee

in dealing with a *verbatim* report, each speaker being desirous of having the last word credited to himself, the acerbity of his opponent's remarks obliterated, but the sharp retorts upon his own side permitted to remain, and if this be not done that individual feels himself aggrieved. Again, speakers demand oftentimes proofs of what they have said, for the purposes of self-correction. This has been obliged to be forbidden by the Council, for some contributors would so change the wording of their speeches that the expense of altering the type was enormous to the editors of those journals who gratuitously publish the reports. The duty of the Publication Committee is, I repeat, onerous indeed, and responsible, and I assure you that now, when no longer engaged upon it, I am often surprised at the few errors these reports contain, considering the large amount of material to be corrected, and the very short space of time in which the revision must be made. So saying, I have only to express the hope that the members of the Society will always support those who have kindly undertaken the task, for it is indeed no easy matter to adjust for publication the report of a *warm* debate, so as to give to either party the credit they deserve from the force of argument advanced and yet erase those portions of each speech which they themselves might perhaps afterwards regret to see in print and yet to do so without weakening the force of argument on either side. That the members of this Committee can ever succeed in pleasing all parties will be impossible. They can only in the discharge of their duty *know no party*, and so acting, will, I feel certain, receive the general support of the Society. As regards the publication of the proceedings, the plan of printing them *in extenso* in the *Medical Press* and the *Hospital Gazette* week by week, as they occur, has, I think, a great advantage over any volume of transactions brought out annually or biennially. The first ensures not only rapid circulation, but frequently elicits from the readers of journals valuable comments and remarks which would otherwise never be made public. Weekly reports are for the most part read. Transactions but too frequently are put by for future reading—a future that never comes. The efficacy of these reports is further shown by the many quotations made from them, and which subsequently appear in the standard works of the day. For all these reasons I trust that the Council will adhere to the plan heretofore so successfully adopted, of publishing the proceedings *in extenso* in those weekly journals which have been so kindly placed at their service for this purpose. There is, in reference to the furnishing of communications, one point upon which I cannot avoid to remark, and that is the scant supply of matter which we receive from our fellow-labourers in the country, and the loss the Society thereby sustains. For this I can in part measure account, and in order to obviate its future occurrence, I would refer to it to-night. The reason will be best exemplified by the answers which as secretary, I so frequently received when speaking to country brethren on this point. "I have not time to write long papers" would be the reply of one; "I cannot 'work up' my cases and fit them for the Society," would say another; "I could only give cases just as they occur in my practice," would reply a third, "and that you know the members would not care to have." Would they not? Did they value, and do they value the Dublin Hospital Reports—those simply told truthful records of surgery and medicine as practically applied to the relief of injury and disease? I believe, gentlemen, that I shall be borne out in saying that what this Society desires to have at its evening meetings is terseness, contributions short and clear, and not borne down with a weight of learning—"simple in their narration, practical in their character, and devoid of speculative theory; while lengthened statements, elaborate tables, and laboured reports, with a ransacking of the literature of the profession for cases bearing similarity to that advanced by any author (as has been stated by a recent writer) are more suited for publication in monograph than for the meetings of our Society. With reference to the programme of business at each meet-

ing, I would beg to observe that, whilst recent specimens in pathology are allowed by the bye-laws of the Society to have a priority over all other communications, these specimens should be *bond fide* recent, that is to say, such as would suffer from delay in exhibition, and not morbid structures that have already been preserved in spirit, or otherwise, and that could well wait for their proper turn for being brought forward. In connection with this subject, too, I may mention that it is my intention to compel the exhibitors of recent specimens to abstain from alluding to the surgery of the case, because points may be mentioned upon which it might be desired by members to have discussion, and that is contrary to rule. I would next say a word or two regarding the Honorary and Association Membership of this Society. The Honorary Membership the Council purpose in future to bestow strictly in accordance with the original rule—viz., to elect as honorary members only such persons as shall be eminently distinguished by their labours and acquirements. "Honorary members," then, will be strictly limited to such, whilst the term of "Associate Member" will be conferred upon those whom the Council may elect to the honour, deeming them as likely to co-operate with the ordinary members of the Society in their efforts for the advancement of medical and surgical knowledge. And now, gentlemen, I have to speak of those who cannot be with us to-night—and it is indeed a painful duty—of those who for many, many years scarcely missed a meeting of the Society, who helped to found it, and who, indeed, assisted mainly in supporting its character as being the source of sound and practical information—namely, of William Hargrave and of Arthur Jacob, two men who were my colleagues for nearly a quarter of a century, two men honoured and respected by the College, whose portraits grace its walls, placed there in testimony of the able and faithful discharge of the duties of their professional chairs. Of William Hargrave, as the last taken from us, I would first speak, if speak I can, when friendship and the recollection of so many pleasing hours passed together fill the heart to overflowing, and almost stop the tongue from utterance. A good anatomist, and a sound opinion, his head and hand made him all that could be desired as a hospital surgeon. Who that saw the brilliant way in which he secured the common iliac artery, when seventy years of age, could help admiring his operative skill? whilst here, in this room we have all, or nearly all, been witnesses of his readiness in debate. To this Society he was warmly attached. No matter how inclement the weather, he came night after night to the latest period of his life to join in our meetings, and add to their value the experience of his extended professional career. The long array of medical students who slowly followed his remains to their last resting place—those oft-maligned, but noble fellows, who are always wont to give honour where honour is due—the number of his brethren who joined in that same procession, all showed by their presence the respect, esteem, and deep regard they felt for William Hargrave. Of him I can truly say that he was an honest man—that noblest work of God—and I shall not forestall by further observation those words, which will ere long be well, nay better said. And now, next on the death-roll stands the name of Arthur Jacob. What shall I say of him? He was an extraordinary man—and these words I use advisedly—because he was no ordinary man. As a colleague for so many years in that hospital which, I may truly say, he himself founded, I had full opportunity of knowing well his real character, his sterling worth. Those who were but slightly acquainted with him may have thought him brusque, but those who knew him well, as I did, speedily forgot his manner, and learned to look with admiration on his unflagging energy, his unchangeable honesty of motive. To the interests of this College I may indeed say he was devoted. He did all for it, whilst its Professor, that man could do, and subsequently gave his valuable library to the College. The series of exquisite anatomical preparations of the eye, both human and comparative, which he made with such labour, he presented to the Museum, and I have now to offer for the acceptance of

the College the drawings of the preparations made by that great master-hand of that membrane which, as long as anatomy lasts, will, I trust, still be known as the *Membrana Jacobi*. Preserved by him in recollection of his earlier life when he laboured in the field of anatomical investigation, the old man kept them as the very apple of his eye; but when Death approached to close those orbs, whilst he could still look upon them, he said, "Take those drawings back to Ireland, give them to the President of the College of Surgeons, and let them be presented in my name to that body." Gentlemen, I do so now. They are yours. It is Arthur Jacob who, though dead, yet speaketh. This is his gift. Will you kindly accept from me another memento in memoriam of him? It is a less pretentious, but in connection with the life of Arthur Jacob, perhaps hardly less interesting souvenir. It is the inkstand that from youth to age he used—a little earthen jar imbedded in a piece of lead—simple in construction, as the habits of the man who used it; solid on its base, as the information which to the world issued from his pen. The first and the last articles he ever wrote were with the ink which this jar contained, and with the pen so dipped he edited for years that journal which he started in defence of the medical literature of his country, and as an organ for the expression of Irish medical opinion. For man to toil more laboriously or more conscientiously than Dr. Jacob did would be impossible; nor have many men left behind as the result of their labours richer fruits than he. His work was continuous and persevering; his life one of devotedness to his profession and its interests. As regards self, his every act was self-sacrifice. And now, gentlemen, in conclusion, I will only say that the object, end, and aim of this Society are noble and praiseworthy, whilst the means it employs are wise and legitimate, and the advantages which it confers upon ourselves, the profession, and the public, are great and manifold. In the working of this Society, whilst our immediate aim is mutual benefit and professional advancement, we are in reality equally aiding our suffering fellow-creatures, bringing our combined knowledge to bear, through individual action, upon the community at large, giving (so far as is permitted to us by the Deity) powers over the health, and even life, of our fellow-man.

## Original Communications.

### WHAT IS DISEASE?

By EDWARD LANE, M.A., M.D. Edin.

It may seem at first sight a somewhat novel question to put as the heading of an article in a medical journal, "What is disease?" Do we not all know already (it may be asked) what it is in its multitudinous forms? Have we not all suffered from it at times from our infancy upwards? And is it not the duty of our daily lives as medical men to observe and report on it, to prevent, to mitigate, and wholly baffle it where possible? No doubt that is true; but having regard to a correct philosophy of medicine, with its important bearings on every-day medical practice, we think the question may not only be profitably asked as a matter of curiosity or theory, but as one of the very first importance, not only to the medical profession as a separate guild or calling, but to society generally. It is surely always wise to exercise a vigilant care over the foundations of the edifice we occupy, more particularly if it should be ancient, venerable, and the object of just affection; while it is also to be borne in mind that we live in a day of the world when the prying eye of criticism is busy everywhere, when the stability of all beliefs and professions is unsparingly ransacked, and every institution whatever is forced to defend itself at

the bar of the most searching scientific investigation. The fundamental question, then, for the medical art of to-day, on the right answering of which so much appears to us to depend, is, "What is disease—that condition of the system which we are constantly called on to deal with professionally? Is there any broad and general way of reliably accounting for it, so that possibly we may get at sound notions, not only in regard to its prevention, but its philosophical medical treatment?" The question, it may be stated at once, could not have been correctly answered before the birth and development of the science of human physiology—a science comparatively of yesterday, though no thinking physician will now for a moment deny that it constitutes the very ground-work of any system of medicine with the least scientific pretensions. What, then, is the chief lesson which modern physiology has taught us? Its office has been to explain the functions of the various organs of the human economy in the condition of health; and this explanation has naturally established a code of laws on the subject, now known as the *organic*, or *fundamental*, laws of health. They are fortunately neither very numerous nor difficult to understand, amounting, in fact, to something like this: In order to have health, the human being requires pure air to breathe; a sufficiency of plain but nutritious diet, pure water to drink, and to maintain his body in cleanliness, the proper amount of exercise necessary to digest his food and vitalise his blood, and finally, the brain and nervous system must not be subjected to overstrain, either through the operation of the purely intellectual processes, or through the agency of the passions and emotions, whether of pleasure or pain, that belong to our moral nature. The above, very shortly stated, may be taken to constitute the fundamental laws of health as laid down by physiology.

Now, when we have arrived at this point, we are led by a very simple step in logic to the irresistible conclusion that if the observance of the above organic laws leads to health, the non-observance or violation of them will as surely lead to non-health, or disease. And, in fact, so it is. If, looking beneath the surface, we inquire narrowly enough into the real cause of the diseases that afflict mankind, we shall find that, putting aside accidents on the one hand, and the maladies directly springing from contagion and from the vicissitudes of heat and cold on the other, it is to the breach of the laws of health that the long array of ills that flesh is heir to is in the main to be ascribed. For scientific purposes, therefore, the question with which we started may be regarded as already answered; and it is something to have got that length, and to feel that we can repose on so firm a physiological basis in regard to this most important doctrine.

But the practical value of such a conclusion is no less immense, as we conceive, to the interests of medicine as a profession, than to those of the public. For the profession, it may be said to open up a new and comprehensive philosophy, both of disease itself, and then of its natural treatment. Perceiving now clearly how disease is chiefly occasioned, we arrive with this knowledge at once at the preponderating importance of prevention, when hitherto we have occupied ourselves almost exclusively with cure, as the medical man's only special and proper business. In other words, we are brought face to face with the subject of hygiene—immense, and immensely growing—a department for the advancement of which the public look to our profession as the natural ministers of health. And then as to the matter of treatment. There is no use shutting our eyes to the fact that, for many a long century, the treatment of disease was both barbarous and childish, from want of the power of correct diagnosis, but perhaps even more, at least in more recent times, from the absence of any true view of what disease really was, and how it was generally produced. Physiology has now come in as our guide, not merely as to the most frequent cause of diseases, but no less as to their rational treatment. It makes it clear to us that when the fundamental laws of health are broken, in whole or in part,

disease, in one form or other, is sure to ensue, and the inference is irresistible that the true and strong position of the medical art consists in this: to battle, with every means which science has put in our hands, to *prevent* disease, and when that has failed, to endeavour to *treat* disease intelligently, by studying with the most careful accuracy the distinguishing features of each complaint as it presents itself, relieving and palliating on all occasions to the very best of our ability, with all the means experience has placed within our reach, without, however, forgetting the *nexus* that binds all diseases together, in regarding them all as a penalty of the broken laws of health, and constantly endeavouring, as the most important by far of all therapeutic measures, to bring back the patient to the implicit observance of the laws of health so violated. The best minds in the profession, both here and abroad, would seem to be travelling undoubtingly along that road, with the sunlight of reason lighting up the way.

### REPORT ON SYPHILIS.

By C. R. DRYSDALE, M.D., M.R.C.P.L., F.R.C.S.E.,  
Senior Physician to the Metropolitan Free Hospital.

DR. ALFRED FOURNIER ON TERTIARY SYPHILIS (*continued*).

DR. ALFRED FOURNIER thus continues his important lectures (*France Médicale*, 19th August):—

IV. *Diagnosis of Uterine Syphilitic Affections*.—In the diagnostic study we are pursuing, a second point, and that quite a special one, ought to arrest us now.

I have told you that tertiary syphilitic affections may be implanted even in the neck of the uterus, and that even there they are not absolutely rare, and I have given you numerous examples of this. Now, these lesions are exposed on the cervix, more than elsewhere, to be mistaken as to their nature, and confounded with accidents of another kind. The proof is that up to this day tertiary lesions of the cervix have not been specially described, and that they are not even indicated in the most recent classical treatises.

It will not, then, be devoid of interest to insist on the diagnosis of this order of lesions. Let us see with what accidents they may be confounded, and seek how we may distinguish them from such.

1. *Mucous Metritis*.—In the first line there present themselves quite naturally here, inflammatory ulcerations of the cervix resulting from what is called mucous metritis, common lesions, generally spoken of as catarrhal ulcerations, granulations, &c.

There is no doubt but that in the majority of cases ulcerated syphilitic affections of the cervix are confounded with those ulcerations simply inflammatory, very variable besides in extent and aspect, and yet ill-defined in character. Yet, when we descend to details, we see ulcerated syphilitic symptoms presenting certain characters which are not presented by the inflammatory ulcerations, or reciprocally; and that, thanks to these characters, they may often (I do not say always) be separated from them with certainty.

Thus: 1. Ulcerated syphilitic symptoms are generally more hollowed out, notably more hollowed out than the inflammatory ulcerations, which, to say the truth, consist very often in erosions rather than true ulcers.

2. They are less granular, more polished, and flatter at the base.

3. The edges are more marked, higher, more cut, true borders, in a word, whilst the inflammatory erosions are almost level with the healthy tissues of the cervix.

4. They have sometimes a contour composed of segments of circles, which is never the case with the inflammatory ulcers.

5. They radiate from the orifice of the neck less regularly than the inflammatory ulcerations, which radiate in general in an eccentric and irregular way from this point.

6. They are not accompanied, as the inflammatory ulcers are in many instances, with swelling of the cervix, uterine hypertrophy, morbid sensibility of the organ, neuralgic peri-uterine pains, menstrual disorders, hæmorrhages, &c. In a word, whilst the ulcerations of the cervix, when inflammatory, are for the most part ulcers on a uterus which is diseased to a certain degree, the ulcerated syphilitic symptoms are, on the contrary, ulcerations on a healthy uterus, except in cases of morbid contingencies.

7. They are, lastly, far more easily resolved than are the ulcers of metritis. These last are, in general, obstinate, and obstinate because they are symptoms of a disease of the uterus. Ulcerated syphilitic symptoms, on the contrary, which affect the uterus, are generally cured pretty quickly and pretty rapidly, with the slightest care, such as by touching them with nitrate of silver, dressing them, &c.

These considerations, joined to the notion of the antecedents, or better still, to the presence of ulcerated syphilitic lesions on the vulva, often clear up the diagnosis in a very precise manner. Should they be sufficient, which happens only too frequently, they permit at least, if not to affirm, at any rate to suspect, the specific nature of these lesions. Now, this is everything, as far as essentials are concerned, as far as the most practical point, prophylaxis.

To a woman, indeed, affected with inflammatory erosion of the cervix, we may rigorously permit relations within certain limits, for these relations in such conditions are not dangerous for others.

But to a woman affected with ulcerations of the cervix of syphilitic nature, connexion should be absolutely forbidden, for these ulcerations are certainly contagious, and by contact with them the male risks inoculation with a grave disease—syphilis.

The essential is, then, here to suspect simply the nature of these lesions, to forbid connexion, and to treat the contagious lesions as quickly as possible, to cut short in this way the possibility of the dreaded contagion.

In the second place, ulcerated syphilitic affections of the cervix may also be confounded with simple chancre on the same place. I only mention this fact here, having insisted at length last year on the differential diagnosis of these two lesions.

**V. Diagnosis of Phagedænic Lesions.**—Lastly, gentlemen, a final chapter remains to be opened by me as to the differential diagnosis of tertiary syphilitic symptoms of phagedænic nature; and this chapter is assuredly neither the least difficult nor the least important of those we have treated hitherto, as you will see.

Phagedænic genital syphilitic affections are exposed to be confounded with the two orders of phagedæna which are seen on genital organs—1st, with the phagedæna of the chancre, and almost exclusively of the simple chancre, since the syphilitic chancre but very exceptionally is attacked by phagedæna; 2nd, with scrofulous phagedæna.

1. Let us just speak of chancrous phagedæna, or that resulting from the simple chancre.

It is certainly a diagnosis not easy to make out when a phagedænic ulceration has eaten away a part of the penis or of the vulva. What is this ulceration? Is it phagedæna due to simple chancre? Is it due to tertiary syphilis? The thing is difficult to specify in many cases.

Doubtless we have the antecedents to enlighten us. The patient has or has not had syphilis. That is essential to know, and that alone may suffice to throw immediate light on the diagnosis. But, first of all, these antecedents may be wanting. How often do we not see, in women especially, some syphilitic affection without any history of special kind, without antecedents. This is a point on which I do not need further to speak after what I said in our last meeting.

Besides, these antecedents are far from always having a precise signification. The patient, I suppose, has had syphilis; he confesses it, or even presents at the moment evident phenomena of it. But is accumulation not per-

mitted? What, will you not admit that the patient, already syphilitic, may not have besides contracted a simple chancre? The thing is not rare, especially here, and many of the women of this hospital are affected at once with syphilis and simple chancres, without preventing them having still other venereal symptoms.

Hence, the syphilitic antecedents (except in cases where the patient has not been exposed to the chance of adding a new contagion) are silent against the possibility of a simple chancre being the origin of the phagedæna. This is precisely the difficulty. But some will say, if the antecedents and commemoratives do not throw light on the nature of the lesion, at any rate, the diagnosis may be made by the objective symptoms. The objective symptoms are scarcely of any value, gentlemen. All phagedæna cases are similar at a given moment; and that which the most attentive examination and minute inspection of the areola of the ulcer, as to its edges and base, can furnish, for the most part only ends in differences greater or less, true shades which have no significance. I have already seen many cases of phagedæna. Well, I declare to you, and that contrary to many authors, I have but very rarely been able, very exceptionally to be informed by objective characters as to the nature of the lesion.

Other symptoms derived from the evolution and from complications may better enlighten the diagnosis in certain cases.

Thus, the simple chancre is a lesion ulcerated from its commencement, which is born in the ulcerated condition, and has been only an ulcer in all its course. Tertiary syphilitic affections, again, arise in the form of tumours, sometimes of solid nature, which soften later on. When they are gummy tumours they have at their commencement a dry period, which may be misunderstood, doubtless, but which is not so always necessarily misunderstood. This is a diagnostic element.

The simple chancre presents complications more frequently than tertiary syphilitic affections do. It is more inflammatory in appearance, more acute in its progress; it suppurates more, is more complicated with inflammatory symptoms, with balanoposthitis, simple or gangrenous, with phymosis, paraphymosis, vulvar œdema, abscess, &c. It is also more extensive, and tends to propagate itself beyond the vulva or penis.

But these complications are still only eventual. When they exist we may derive assistance from them; but when they do not exist (and they are often absent) nothing can be inferred from this, of course. Besides, did they exist in the highest degree, they have still nothing absolutely significative. They form elements of probability, not of certainty.

Let us, then, pass over these different considerations, and proceed straight to the true elements of a formal and absolute diagnosis.

Between chancrous and tertiary phagedæna, I see, in short, but two differential signs clearly and peremptorily characteristic. These two are—

1. The existence of the *chancrous bubo*, to which we may join as annex the chancrous lymphangitis.

2. The data of inoculation.

What indications do these two symptoms furnish?

1. *Chancre Bubo*.—If the ulcer we speak of has been complicated, or is actually complicated by what is called a chancrous bubo (that is to say, a bubo which has a chancrous suppuration, an intra-glandular inoculation, a true inguinal chancre), then the diagnosis is formal and absolute; for the simple chancre alone determines this kind of bubo. The chancrous bubo discloses the simple chancre as its origin. It is the witness, the demonstration of it, as I have established in our conferences last year.

But, again, the chancrous bubo is but an eventual accident of the chancre; it even is more frequently absent. This is not, then, yet a symptom on which we can count.

As a last analysis, there remains, in difficult cases, but one element of diagnosis. But on this we may always build, for we have it always at our call, and may always

consult it; it is inoculation, auto-inoculation, of course, which is the only permissible one, the only lawful and the only moral kind of inoculation.

## 2. Inoculation.—What does this furnish?

This: Inoculate the pus of a chancreous phagedæna. You produce a simple chancre, with the formal and irrefutable characters of the simple chancre, which I have spoken about to you. Inoculate the pus of tertiary phagedæna. No result occurs, the inoculation remaining sterile, or negative. Ah! here at last is a symptom, a precious one, a true criterion; here is a symptom which may enlighten us in doubtful cases.

The formal diagnosis of chancreous phagedæna and tertiary phagedæna resides, and resides only in inoculation.

But here, gentlemen, an observation ought at once to be made. Reflect well that we have not to do, in the case before us, with an ordinary inoculation, with an inoculation in the ordinary condition, when this experiment is practised. It is not only a chancre the pus of which you are inoculating in such cases, but a phagedænic chancre. Now, this phagedænic chancre may more than any other, better than any other, reproduce a phagedænic ulceration. Of course, this experiment will not of certainty produce a phagedænic chancre; for, if this were so, not only would I not propose the inoculation to you as a method of diagnosis, but I would forbid you to make use of it, I would consider it my duty to forbid it, and to forewarn you against the attempt at such practice. But again, besides the condition of the person, and besides the nature of the lesion from which the pus is taken, there are risks that, practised in particular conditions, the inoculation may become the origin of a phagedænic ulceration. Thus, on the one hand, we should be as sober as possible of this mode of experimenting; we ought even to refrain from using it unless there be immense importance for the patient that we should be certain as to the nature of the ulceration, and if we have scientific inductions which prejudice negatively the result to be obtained. On the other hand, if we decide to practise inoculation, we ought to proceed to it with more care and precaution than usual, and, especially if the pustule be produced, we should destroy it immediately, by the most energetic procedure, without giving it the power or leaving it the time to extend. Cauterisation with sulphuric acid mixed with charcoal dust (the carbo-sulphuric caustic of Ricord) is here the simplest and the surest at once.

Still, as a counterpart to what I have just said, I would add that there are cases where the utility of this inoculation is such, where there is everything to gain for the patient, that a precise diagnosis should be commenced as to the lesion, that the inoculation becomes then not only lawful, but necessary. We ought then to persuade the patient to use it (a consent indispensable for the dignity and the security of the practitioner), and having obtained his consent, we may boldly practise the inoculation. For on this and this alone may depend the diagnosis, and with the diagnosis, the treatment. To convince you of this, I will mention the following case, which struck me forcibly some years ago.

I had occasion to be consulted by a patient who for two years had been treated for a supposed simple chancre of the penis. This chancre, after destroying a good half of the gland, had attacked the prepuce and partially removed the covering of the corpora cavernosa. It was going on, always progressing. Nothing had affected it up to that time. After having for long examined this hideous wound, I thought by certain signs that I could recognise a phagedænic syphilitic tertiary affection, although the patient denied having had syphilis, and asserted that he never had had any venereal accident but this. Not having been able to bring the doctor who was treating it to agree with this diagnosis, I proposed inoculation to set the debate at rest, judging beforehand that this experiment would have a negative result, consequently, inoffensive and very useful by the light that would arise from it. Refused at first, the inoculation was accepted two months later, when the ulcer

had made further progress. As I had announced, the inoculation was negative. On this indication, specific treatment was then commenced, and I am glad to say it was followed by a rapid success.

Observe what assistance inoculation may offer in like cases to the practitioner, and especially to patients.

2. Some words, finally, as to *scrofulous phagedæna*. Scrofulous phagedæna attacks the penis quite exceptionally. I have as yet seen but one or two examples of it. In revenge for this, there exists in women an affection of the gravest and most hideous kind, which develops itself under the influence of scrofula, and which reproduces upon the genital organs, sometimes also on the anus, the lupus of the face. This affection you have already guessed: it is the lupus of the genital organs, scrofulous lupus of the valva, *esthiomène*.

I am not about to trace for you here the symptoms of this affection, which you will find marvellously described either in the original memoir by M. Huguier, or in the recent article of M. Bernutz ("Nouveau Dict. de Méd. et de Chir. Prat.," xxix.) By a word, I will remind simply of its principal traits in thus observing, that it is the scrofulous lupus of the genito-anal region. Transport, indeed, lupus of the face to this region, with its tubercles, its ulcerations, and hypertrophies of tissue, its destructions, perforations, &c.—transport this, with all its *cortège* of hideous symptoms and mutilations, and you will have exactly the representation of what genital lupus in women consists.

It is, consequently, useless to say that this lesion is objectively similar to tertiary phagedæna, and may be confounded with it, or reciprocally. It is also useless to add whether it is necessary or no to establish a precise diagnosis as to lesions so grave as this. Let us then, in a few words, try to trace the differential diagnosis of these two pathological types.

The objective symptoms of the lesions we are about to compare present without doubt a certain number of differences. Thus, vulvar scrofula has generally a contour more irregular and sinuous, more uniforn, as M. Huguier says—it has its edges less vertically stamped, less sharply cut, more inclined by a gentle slope towards the base of the lesion; it has a redder base, more violet in colour, and more villous; it secretes less, and rather sanious serosity than pus, &c. But there are, after all, but slight differences, often of little significance, and subject to variation, and upon which we cannot base, in many cases, to institute a differential diagnosis.

Something more characteristic is offered by the coexistence in certain cases of certain small vegetating tumours with the scrofulous ulcer, tumours pisiform, mammillary, sessile, wart-like, which are produced either on the non-ulcerated skin, or on the surface even of the ulcer (vegetative form of *esthiomène*). But this is only again a chance symptom, a particular form of the disease, and has nothing constant about it.

On the other hand, a better sign, and one I recommend to the attention of you all, because it has struck me greatly in several cases, comes from the condition of the parts which surround the ulcer.

These parts (and it is especially in the labia majora that this is remarked) present a state of soft swelling, with rose-lilac tint of the integuments. The labia majora are swollen, and as if hypertrophied; these neither œdematous nor brawny, nor indurated, as in common sclerema. They are at once swollen and softish. Their cutaneous part has a morbid suffusion of a rather special tint, a rose-violet tint, with parts covered with a slight brawny desquamation.

Hence arises a rather special appearance—an appearance hardly describable, which must be seen to be well convinced of, and which gives to the lesion a truly rather distinctive appearance.

The evolution and progress of the lesion also present diagnostic points useful to consult. Thus, vulvar scrofulous lupus has a very slow evolution, much slower than tertiary phagedæna. Its progress and destruction take place only in months or years, so that, examined at



intervals of some weeks, the lesion seems almost stationary.

It is besides a phagedæna, which takes place on the spot, which has little or no expansion, remaining confined to the vulvo-anal region, not as with certain cases of tertiary phagedæna which pass away from the vulva to the abdomen and the inguinal regions.

Besides these two orders of signs, others more general and more certain are again furnished by some considerations of a different nature, namely, the examination of the constitution, the morbid antecedents, actual accidents, and from the results of treatment.

The examination of the constitution, of the antecedents, and of actual accidents will teach you if, yes or no, the patient is afflicted with the scrofulous diathesis, and if she has had, or still has non-equivocal manifestations of it; if, yes or no, she has been formerly affected by syphilis: It is useless to insist on the considerable value of these pieces of information, which are first of all to be looked for for diagnosis.

But have these pieces of information always an absolute value?—do they always suffice to clear up the diagnosis in an absolutely peremptory way? Yes, in the majority of cases; no, in a general fashion. We must not, in fact, neglect here the two following points of view.

Firstly, if vulvar scrofula most frequently appears in scrofulous women, that is, clearly so from their antecedents and actual habits, we have seen it also produced in women of middle constitution, not having presented any previous symptom of scrofula.

More than this, syphilis may be added to the scrofula, may arise on a scrofulous soil. Hence morbid influences and complications, which are not easily separated.

In the last place, the treatment remains, which, especially here, more than elsewhere, may serve as an element in the diagnosis.

There are, first of all, cases where the diagnosis, which at first sight was doubtful, is quite naturally established in some days under the influence, not of treatment, but of simple hygiene.

Sometimes, on the first day of the arrival of the patient in hospital, it is perfectly impossible to know with what we have to do, such is the hideously confused condition of the lesions. But in a few days after, when the patient has been washed, bathed, dressed, rested, and carefully tended, the lesions change in appearance quickly, become modified and transformed as by magic, and the diagnosis of syphilis can be made by this fact alone.

It is indeed nearly alone in syphilis that we are permitted to see these quick transformations. Vulvar scrofula, by general confession, is far more obstinate and far more refractory.

*A fortiori*, treatment has an influence yet more significant, after an interlude of some weeks.

If the lesion be syphilitic, in some weeks it generally undergoes a curative influence, evident and manifest, under specific treatment.

Doubtless there are exceptions to this rule; doubtless tertiary phagedæna has also its rebellious cases: but this is the rarer case. The common fact, on the contrary, is the rapid amendment of tertiary lesions under the influence of the treatment.

If, on the contrary, we have to do with true vulvar esthiomène, hygiene and anti-syphilitic medication do not modify it; the anti-scrofulous treatment even remains without action upon it: we only modify it with extreme slowness, almost desperately so; most generally it even remains absolutely useless.

So that the diagnosis, if it sometimes remains at first undecided, rarely remains unfinished when treatment is tried.

Such, gentlemen, is the collection of the signs which permit us to distinguish phagedænic syphilis from scrofulous phagedæna.

(To be continued.)

## CHOLERA: ITS ÆTIOLOGY, CONTAGIOUSNESS, AND TREATMENT.

By WM. BOYD MUSHET, M.B. Lond., M.R.C.P.,  
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### ÆTIOLOGY.

(Continued from page 456.)

Now, with regard to Dr. Johnson's first proposition, which is an adoption of the prior views of Dr. Baly and Sir Wm. Gull, no evidence is adduced in support of the assumption of the materiality and portability of the cholera poison, and of its communicability from person to person. These hypotheses *may* be correct, but they prove nothing as to the specificity and contagiousness of the poison of cholera, and they are directly at issue with the belief of some of the highest authorities on the subject. As to the proposition that the poison is absorbed into the blood, similar objections will apply to those raised in reference to the preceding; but this will be more clearly considered in the sequel.

Dr. Johnson's proposition that the discharges are a conservative effort, similar to the eruption of variola, and the diarrhoea of typhoid, is founded on a most erroneous analogy; as, if there be any resemblance in the morbid processes, we should promote the eruption of small-pox by heat and diaphoretics, as eliminants, and administer cathartics in typhoid for a like purpose. Again, would the most strenuous attempts at elimination cut short the two latter diseases, *i.e.*, arrest their further course?

If we admit, with Dr. Johnson, that the cholera poison is as drastic a purgative as any in the *materia medica*, and that this "cholera-cathartine" must and will purge itself away—is it therefore to be aided by further purgative efforts? As well may we attempt to treat a case of excessive evacuation from elaterium with castor-oil, instead of striving to control the discharges by opium, sedatives, and astringents. But Dr. Johnson will doubtless reply, that in cholera we have "zymotic" changes in the blood, and not after a dose of elaterium; but I maintain that the presence of such changes is equally problematical in the former as in the latter, and that it is less rational to expose the patient to an undisputed *hypercatharsis* than to the risks of a highly questionable *zymosis*.

Dr. Johnson allows that the discharges may be so copious as to kill. This is admitted even by Dr. Johnson, who yet declares that the discharges bear no direct relation to the degree of collapse, that they are not the essential or chief cause of this, as collapse and death may occur without discharges, and with but scanty secretions into the bowels. Such cases are very, very rare, to say the least, even in India (see *Lancet*, June 2nd, 1866), as Drs. Parkes and Goodeve never witnessed a fatal case of cholera unattended with vomiting and purging, though, it should be added, that Dr. Parkes regards them as usual, but not essential symptoms, and thinks it probable that cholera might occur entirely divested of these symptoms. In England such cases are even more rare (has Dr. Johnson ever witnessed one?), and almost every one who has seen much of cholera admits that the evacuations are ordinarily in direct ratio to the collapse. Thus, of 1798 cases of collapse reported to the Board of Health in 1854, all but 6 were attended by intestinal discharges, and in these exceptional instances it is stated that more accurate inquiry would most probably have elicited the fact that some intestinal flux occurred before the phenomena of collapse were developed. Physicians seem to have overlooked to some extent the variations in constitutional power and in the previous state of health of persons attacked, consideration of which would in most instances explain apparent anomalies. It is well known that some few persons will become collapsed, and almost succumb to two or three ordinary diarrhoeal evacuations, on account

of feeble vital power, inherent debility, nervous idiosyncrasy, or existing cardiac disease. Such persons, it may be said, live on sufferance, requiring little disturbance to snap the thread of life. How unequally do different individuals bear operations, chloroform, pain, and other mental and physical shocks, many of whom, previous to the fatal seizure, have manifested no marked peculiarities, and provoked no particular medical attention! Now and then a patient will die from mere fright, the sting of a wasp, a crushed finger, or faint from the slightest causes.

Moreover, in these cases of "cholera sicca," did Dr. Johnson even perform an autopsy, or hear of one having been performed, in which there was neither vomiting nor purging from the commencement to the termination of the case, and in which the intestinal tube was devoid of exhalation?

Dr. Johnson not only disregards the dangers of the premonitory diarrhoea, but promotes the symptoms by castor-oil. It is not too much to say that, in cholera periods, a person with slight relaxation of the bowels is, in the opinion of Dr. Johnson, in a more desperate condition than a patient actively *αὐτὸ καὶ κατὰ* evacuates. And yet, with singular inconsistency, this physician allows that the "abundance of the gastro-intestinal excretion is a pretty accurate measure of the severity of the attack"—the excretion which he is desirous of aiding and augmenting in defiance of its physio-pathological significance. Again, he says, "no cases are more hopeless than those in which there is not only a cessation of vomiting or purging, but an almost complete arrest of the process of excretion from the gastro-intestinal canal." That is, that the patient has least chance where the drain has been so abundant as to leave nothing more to be exhaled, thereby confessing that the choleraic discharges tend in proportion to their severity to induce irretrievable collapse.

Dr. Johnson's explanation of the phenomena of cholera is that there is a spasm or contraction of the minute pulmonary arteries, caused by a morbid poison in the blood, which acts as an irritant to the muscular coat of the vessels. Here Dr. Johnson argues from facts to hypotheses, as the lividity, fall of temperature, and purgation can be otherwise better explained; and the imaginary morbid poison is a sort of *Deus ex machina* introduced to account conveniently, but imperfectly, for the arterial spasm, which is limited, as far as can be discerned, to the pulmonary vascular radicles, though the phenomena point to impeded circulation in every part and organ.

We search in vain for enlightenment why the pulmonary vessels are alone subject to the irritant action of the oft-invoked poison. This view of muscular contraction, spasm, obstacle, difficulty or thickening appears to be a hobby of Dr. Johnson, as he applies it to the explanation of Bright's disease, apoplexy, epilepsy, and cholera. Indeed, he defines cholera collapse as pulmonary epilepsy! (*British Medical Journal*, March 21st, 1868). This is a revival of the pathology of Cullen, a recurrence to spasm of the vessels ingeniously spun out to a most sophistical tenuity. As a sample that these observations are not unfounded, Dr. Johnson, in a communication to the *Medical Times and Gazette* on July 2nd, 1870, as to the proximate cause of hæmorrhage into the brain in chronic Bright's disease, maintains that it is due to "hypertrophy of the left ventricle, resulting from excessive contraction of the minute systemic arteries, which impede the onward movement of the blood, thus calling for increased efforts on the part of the heart to carry on the circulation. The muscular walls of the minute arteries are much hypertrophied as a physiological result of long-continued overaction. The struggle between excessive cardiac force and excessive arterial resistance increases the risk of hæmorrhage consequent on rupture of the minute arteries." This dictum is, nevertheless, controverted by a quoted case in which "the arteries of the pia mater presented no appearance of hypertrophy;" and Dr. Johnson thinks it probable that in this instance the cerebral hæmorrhage resulted from rupture of the capillaries, and that the

immediate cause of this rupture was excessive pressure of the cerebral capillaries, due to the fact that the propelling force of the hypertrophied left ventricle was *not* counterbalanced by an equivalent hypertrophy and consequent resisting power in the minute cerebral arteries; or, in other words, that the hypertrophy of the minute cerebral arteries, if present, is held to account for the hæmorrhage, and when absent, is equally called upon to explain its occurrence, to the exclusion of atrophy and degenerative changes. Dr. Johnson has observed in cases of chronic Bright's disease, with hypertrophy of the left ventricle, that, as a rule, the minute arteries in all the tissues examined, as kidneys, pia mater, subcutaneous tissue, muscles, mucous membrane of the bowels, have their muscular walls hypertrophied. Yet hæmorrhages into the kidneys, pia mater, subcutaneous tissue, muscles, and intestinal mucous membrane are singularly rare.

In cholera the spasm is most intense, the contraction of vessels greatest after the most evacuation, where there is, according to Dr. Johnson, the least poison remaining in the system. He thinks the collapse due to the contraction of the pulmonary arterioles, and that thickening of the blood is not the cause, but rather the consequence of the collapse. But it is in greater agreement with physiological truths to believe that the collapse, failure of circulation, and inspissation of the fluids are in direct proportion to the discharges and to the *arrestment of nutrition*.

There is, says Dr. Johnson, a primary asphyxia, a secondary apnoea; but, if asphyxia, why not coma, which is invariably the result of ordinary interference with respiration? And, as he explains the absence of syncope in cholera by supposing a venous turgescence of the brain, his difficulties increase in endeavouring to account for the non-occurrence of comatose symptoms. In other words, Dr. Johnson tells us that there is a condition of asphyxia, although the brain is clear, and the freedom from coma depends upon a primary asphyxia *plus* a venous turgescence of the brain! Dr. Johnson entirely overlooks physiological nutritional considerations, and makes cholera to be due to non-absorption of oxygen by the lungs. His doctrines are mechanical, to the exclusion of chemical, of vital changes. It appears to be a more satisfactory theory than that of pulmonary arterial contraction to ascribe the phenomena to *failure and gradual arrest of the nutritive forces*, however much we may differ as to the cause by which the effect is accomplished. According to Dr. Parkes, "patients die because the blood does not pass through the lungs, produced by some aberration of, or impediment to, the proper respiratory changes." In short, there is no nutrition, therefore no carbonic acid formed, and hence no necessity for respiration. Dr. Parkes truly said before Dr. Johnson that we must look to the *blood itself* for arrest of the pulmonary circulation. The blood is no doubt equally arrested in the capillaries of other parts of the body, owing to the *arrest of nutrition*; there is, in consequence, little or no need or power of circulation, little or no formation or evolution of carbonic acid, and therefore no requirement for oxygen and respiration. Parkes has noticed collapse of the lung in cases of consecutive fever in post-mortem examinations. Such appearances might be reasonably expected, as occasional, like the atelectasis of the newly-born if weakly, or the pulmonary collapse witnessed after fatal cases of pertussis, where the child is too feeble to expand the lung after violent expulsion of the residual air. In these cases of consecutive fever, the appearances are the result of the algid stage, expansion not occurring after reaction in consequence of the debility of the patient.

The diminution in temperature, the shallow respiration, the mahogany blueness of the surface must depend upon deficiency of oxygen and of oxidation in the system. There is no *besoin de respirer*, as there is little or no chemical change—no carbonic acid is formed in the extreme parts, and we know the respiratory function or necessity is merely for the purpose of elimination and interchanging carbonic acid for oxygen in the lungs. We also know that the temperature is proportionate to the

activity of the nutritive processes. Hence the shallow breathing—as there is no carbonic acid to exhale, no oxygen to absorb—the decreased animal heat, the darkened blood, which last, on account of the discharges, gradually becomes inspissated and stagnant from non-aëration devitalization. Hence also the collapse of the lung, in many cases, from imperfect expansion, which also occurs, as I have stated, in young children, as a result of pertussis and inability to draw in air for complete reinflation. Hence also the systemic collapse, the suppression of urine—as there is no disintegration of tissue—and of bile also, in most instances. There is absence of sensorial disturbance, as there is no poison in the blood, no effete material, no formation of carbonic acid, to complicate matters; but there is an apathy, an unconcern in the algid stage, as we might expect, as a consequence of cerebral centres imperfectly supplied with blood—circulating languidly in the vessels. But patients can speak feebly, and are usually conscious up to the period of dissolution.

Again, there is not extreme exhaustion in cholera until the last, as venous or imperfectly (oxygenated) arterIALIZED blood stimulates the muscles (Brown-Séquard). The heart, therefore, as a muscle, acts tolerably well, as does the general locomotive system, even when the patient is cold, haggard, with sunken eyes, Hippocratic face, and corrugated skin, which train of symptoms last enumerated depends in a measure upon withdrawal of fluid from the vessels by the discharges. On this account, partly, as well as from diminished blood current—no carbonic acid seeking egress—are noticed the emptiness, dryness, and lightness of the lungs of those dying in collapse. The change, if present, is only physical, not vital nor causative. Little or no blood is sent through the lungs, as little or no carbonic acid is formed in the general capillaries. Probably other organs weigh less—though the lungs may be expected to show this most markedly—as the whole body must be lighter in weight if drained of its fluids, and if the whole body, each, or most of its parts.

(To be continued.)

## Transactions of Societies.

### MEDICAL SOCIETY OF LONDON.

MONDAY, DEC. 14TH, 1874.

F. J. GANT, Esq., F.R.C.S., Vice-President, in the Chair.

MR. WILLIAM ROSE brought forward a case of cleft palate on which he had operated successfully. The patient, a young man, æt. 23, came under his charge about three months ago. He had a fissure extending through the soft and hard palate, to within half an inch of the alveolar ridge. He spoke of the development of the upper jaw and palate, which he illustrated by diagrams, and suggested a plan of bringing the maxillæ together immediately after birth in cases of very wide cleft. He described minutely Sir William Ferguson's new method of operating for simultaneous closure of fissure in the hard and soft palate (a drawing of which was shown) by boring holes through the margin of the hard palate for the passage of the threads, and then cutting through it with a chisel in a line parallel to and about half an inch from the edge of the cleft. By this means the edges of the cleft in the hard palate could be approximated. After dividing the levator palati muscle on each side, and carefully paring the edges, stitches could be passed through the holes in the hard and through the soft palate, and the edges brought into apposition in the median line. He demonstrated a new way of passing the threads. He spoke of Sir Wm. Ferguson's introduction of myotomy thirty years ago in the treatment of fissure of the soft palate as having quite revolutionised staphyloraphy, and expressed his firm belief that the recent introduction of osteotomy in the treat-

ment of fissures of the hard, by Sir Wm. Ferguson, would rank high as an operation among the numerous contributions to practical surgery of the eminent surgeon. He also stated that Sir Wm. Ferguson, when he published a paper on the subject last April in the *British Medical Journal*, was not aware that any other surgeon had suggested such a course of procedure. It was, however, shown that Dieffenbach, in his "Operative Surgery," published in 1845, had proposed a somewhat similar operation; but there was no evidence to show that he had ever performed it on the living subject, and his successor, Baron von Langenbeck, had never adopted the suggestion. He added that Sir Wm. Ferguson had operated on more than forty cases by the new method of dividing the bone, and that in all the palate was improved, and that two-thirds of the cases were successful.

MR. HENRY SMITH said that thirty years ago he had written out Sir Wm. Ferguson's original paper, in which staphyloraphy was mentioned, and had also assisted in most of that eminent surgeon's operations since. In the early ones, operation on the soft palate alone was attempted, and the results were not so favourable as under the new plan of osteotomy. Our Transatlantic brethren thought so little of staphyloraphy that they divided the soft palate afresh, and applied obturators. Mr. Smith considered that the natural coverings were far superior to artificial ones, and thought Mr. Rose's case was thoroughly successful, the fissures in the hard and soft palates being completely closed, which was a better result than had been achieved in his case, exhibited at the last meeting of the Society. Surgeons who proposed operation in these cases must be prepared for severe hæmorrhage, on account of the vascularity of the palate; this might be stopped by ice and other means; neither had it ever been known to be fatal. He dwelt at some length on the advantages of the gag, which enabled surgeons to undertake operations that had been almost impossible before.

MR. OAKLEY COLES stated that it was the surgeons of America, and not the dental surgeon, who slit up previously closed and soft palates to introduce artificial structures. He considered, however, that surgery would accomplish much in this field, and that the time was coming when the mechanical treatment of cleft palate would be obsolete. The great drawback in the surgical results was that the patients seldom spoke intelligibly; he only remembered one instance where speech became perfect after the operation; and failure was attributable to the fact that the free border of the soft palate in these cases never reaches far enough back to touch the pharynx to act as an effective valve, and here the mechanical appliance is far more successful.

MR. THOMAS BRYANT said that, after reading Sir W. Ferguson's osteotomy paper, he was at first sceptical, but now considered the operation a great advance. He wished to know whether, in the infant, silver sutures had actually been passed through the maxillæ to bring the fissures together. Of the old operation on the hard palate more than half had failed. How many of Sir W. Ferguson's forty cases were successful? There was no difficulty in piercing hard or soft palates, but in passing the stitches through, on account of the bleeding. Mr. Bryant introduced the stitches first, which facilitated matters, and reduced an operation of half-an-hour to a few minutes. He had some doubts as to the dividing of the levator palati muscle in every case, but thought a division of the pillars of the fauces was an improvement.

MR. ROYEN BELL complimented the author on his skill, and stated that the speech in this case, though varying, continued to improve. The patient could sing. The hæmorrhage in these cases was much less than formerly.

MR. FRANCIS MASON remarked that Sir Wm. Ferguson's success was greater since he had divided the bone. Previously he had used an angular knife instead of Langenbeck's raspator, and the sloughing of the parts was due, he thought, to his taking too thin a portion off. The maxillæ had been brought together in infants in America.

DR. VANDERVEER, U.S.A., questioned if American surgeons did slit up united soft palates. He had never heard of it being done in America. At Boston, Dr. Warren had tried Sir W. Ferguson's operation, and failed. He had also attempted it, and had succeeded in uniting the soft palate, but not the hard. He had come to England especially to gain information on the subject.

MR. OAKLEY COLES referred the last speaker to the "Transactions of the Odontological Society."

Dr. CROMBIE recommended the galvanic canterly for dividing the bone, as causing less hæmorrhage than the drill.

Dr. DRYSDALE thought that obturators were very suitable for improving the voice, and quoted an instance of an actor in Paris remarkable for his good articulation, who, nevertheless, had perforation of the hard palate, cured to some extent by an obturator.

Mr. ACTON used to deplore that syphilitic cases were not operated on in this way, but deplored it less now, as he noticed in the present case the voice was far from perfect.

Mr. MASON explained that his reasons for adopting the perforating method was that both Dieffenbach's and Langenbeck's led to extensive exfoliation of the bone.

Mr. GANT was pleased at the thorough discussion that had taken place. After tracing the history of the operation, he remarked that one difficulty was the complete closure of the cleft where the soft and hard palate met. In one case he had accomplished this by the use of heated wire.

Mr. ROSE briefly replied, and the meeting adjourned.

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## The Medical Press and Circular.

"SALUS POPULI SUPREMA LEX."

WEDNESDAY, DECEMBER 23, 1874.

### METROPOLITAN HOSPITAL SUNDAY FUND.

THE debate which took place last week at the Mansion House has shown clearly that the institution of a special public body to administer public charities in London is likely to prove a most important means of moralising the managers of our hospitals. Who of us is there that has not often suspected that the gravest and most flagrant examples of dishonesty lurked among the irresponsible committees and managers of many of these vast institutions? Accounts unaudited, or audited only by some person totally unacquainted with business affairs, drug bills of enormous length passed with haste and unexamined, because some of the officials were in collusion with each other, salaries of said officials equalling in extent, or nearly equalling, the amount expended on the sick poor; whilst the only honest and well-educated class of employed men in the establishment—the medical honorary staff—is snubbed and treated with impertinence and vulgar arrogance by a host of shopkeepers and purse-proud speculators, who employ the hospital as a means of advertising themselves on their career towards civic dignities or positions in the vestry. Such are but a few of the myriad of evils arising from the system of uninvestigated public charities in London.

In Paris, where there is a central body, or *Assistance*

*Publique*, which alone is allowed to manage the public hospitals and funds left by kind-hearted persons to aid their poorer neighbours in distress, all medical men know how much preferable is the position of those who make hospital appointments the road to honour and livelihood. In the first place, in Paris all the posts of distinction in hospitals are obtained by open competition among all qualified members of the profession, and these being obtained, the physicians and surgeons of Parisian hospitals are naturally entrusted with the sole and supreme authority in their own department. In London, on the contrary, it is notorious that the secretaries and treasurers of many of the most important medical charities are enabled, by the power they irresponsibly wield, to make even the most eminent men in our noble calling perform acts which are not in consonance with the position which the medical man ought to hold as the only responsible person in matters relating to the care of the lives of the poor. Who has not heard of the officials of this or that hospital, and their assumption of unlimited authority over the eminent men who have, notwithstanding the contemptible system which regulates appointments in London, from time to time appeared among the professional staffs of such hospitals?

In the smaller and less-known charities, which seem in many cases to exist merely for the benefit of the secretary and his family, an amount of indignity may be attempted to be put on such members of any medical staff as do not agree with everything done by the committee or its officials, or fail to believe their unprofessional judgment sufficient to provide unassisted for the wants of the unfortunate and the diseased, as might well sicken persons less patient and self-denying than medical men are with all kinds of medical charities whatsoever. Were it not, indeed, for the absorbing interest of all connected with the health of the race, we cannot help thinking that the medical men of London would long ago have combined resolutely to have forced the hospitals of London to be managed in such a way as to prove of service both to the patients of the metropolis and also to themselves.

The said meeting of the Council of the Hospital Sunday Fund was its first meeting since June, when the collection was made, and when the sum obtained from all sources was found to amount to nearly £30,000. At the meeting of last week the medical journals of London were well represented in the persons of Mr. Brudenell Carter, Dr. Glover, and other able gentlemen. Mr. Carter proposed that a few gentlemen who represented large and small hospitals and dispensaries should be joined to the Distribution Committee, in order to try to find out the best principles on which any future distribution of funds should be made. There have hitherto been nine gentlemen on the Distribution Committee, and, on the whole, they have done their work most justly and well. Still, there is no doubt that the public and the profession would be glad to have it distinctly stated on what grounds some hospitals have received much more substantial grants from the Fund than others. And here we would mention the only fault we have to find against the action of the honorary secretaries—viz., that they do not call the Council together to receive the reports of the Distribution Committee and of the General Purposes Committee before

the awards are made known to the general public and the final report printed for distribution. This is to our minds an error of judgment which it were well to remedy on future occasions.

The treatment of provident dispensaries by the Distribution Committee has not given satisfaction to the mass of London practitioners, who are looking to these new institutions for some relief in the dead lock which has recently taken place in the working of charitable institutions, affecting as these do so much the welfare of the profession. If there be one point on which general practitioners are more agreed than on another, it is with respect to the value of provident dispensaries. The presence of medical men on the Distribution Committee will be of great assistance to the principle of self-help. The public-spirited speeches made by Sir Sydney Waterlow and by Sir Charles Trevelyan give us all steady hope that there will be in future eyes watching the holes and corners of our hospitals, which have hitherto been dwelling in the dim and unwholesome twilight of obscurity. Chairmen of committees must now be on their guard to see that accounts are made up in a fair and honourable way, and that the money given by good men and women for the care of the sick and indigent is not turned over to some political friend, who, as the wages of *employés* of the hospital, receives the reward due to faithful service in election days.

Medical men will now have a court of appeal from the impertinent assumptions of non-professional men who are so fond of employing doctors for nothing, as Sydney Smith remarked, to relieve them from their duty in showing kindness and thoughtfulness towards their servants and dependents. And it is to be hoped that this new Hospital Sunday Committee may not be content only with administering charity to the poor of London, but that it may, perchance, think that over-much gratis doctoring is likely to be of scanty service in the long run to the poor of London themselves. As it is at present, it is notorious that the gratis system of hospital appointments tends to keep out of many of our hospitals those who would be most useful to the poor, because they are compelled to work in order to live. We do not say that much good work is not done by non-paid men—perhaps the best of all work must ever be unpaid—but there is a tendency in human nature for persons who are not paid to feel less responsibility than those who take a retaining fee.

#### HAMPSTEAD AT BAY.

THE people at Hampstead, that pleasant and salubrious mountain-land of the cockney, are at present in a state of mind almost bordering on frenzy at the prospect of another hospital being added to the list of those already located in their little town during the past few years. A consumption hospital—the North London Consumption Hospital—was the first, we believe, to obtain a local habitation in the place, and we hear that its directors have quite recently bought a very charming piece of ground, with a house on it, for thirty-six beds, which they contemplate making into a larger hospital as years run by. The worthy magistrates of Hampstead, fired by a noble ambition to keep up the rents in their salubrious district, have, it

seems, been at continued warfare with the Committee of the said North London Consumption Hospital with respect to the dangerous class of cases which necessarily too often occupy the wards of the hospital; and their influence has been powerful enough, it is said, to compel the Committee to have a sort of tacit law that no poor consumptive patient is, if possible, to be allowed to die in its hospital, thereby swelling the bills of mortality, and lowering the prestige of the breezy northern suburb, and, as before hinted, the rents of lodging-houses, &c. To die in Hampstead is a kind of crime, it would seem, just as it is in some fashionable watering-places abroad, where we hear of all funerals being compelled to be carried out at night, so as not to interfere with the gaiety and splendour of fashion during the season.

Alas! Hampstead has recently been insulted by having a hospital for small-pox thrust upon her sunny slopes, and, horror upon horror! she is now menaced by the permanent infliction of a fever hospital, similar to that in Liverpool Road, Islington, and in other less sacred spots of our huge metropolis.

Decidedly it is time for the men of Hampstead to speak out; and accordingly there are rumours of meetings and of deputations of enraged householders to protest against the desecration of the holy hill. The brave inhabitants are determined to spare no pains to keep fever, consumptive, and small-pox patients as much as possible in the unhealthy parts of London, in order to save themselves from an enhanced death-rate.

Now, all of this is, we must plainly say, very selfish and contemptible in our friends and citizens of Hampstead. If any one of them with a little money in his pocket were to be seized with threatenings of consumption, would he not gladly be removed to purer air and healthier localities than those where the disease was contracted? And, if Hampstead be, as many think of it, the natural sanitarium of London, is it not most unfair to wish to keep poor weary London consumptives, or fever patients, in bad air and crowded localities when a short journey will bring them into such fresh breezes as blow about the little town? The death-rate of Hampstead can easily be kept separate from that enhanced by the deaths occurring in any hospitals that may be erected there, and thus the town need not lose its good character, however many hospitals be brought thither.

As to a permanent fever hospital being a calamity to Hampstead, if erected there, one has only to remember that the inhabitants of Islington once on a time entertained this groundless fear—a fear which has been entirely dissipated by experience, since such a thing as a case of fever spreading to any of the houses adjoining the hospital in the Liverpool Road is quite unheard of. The houses opposite the hospital, and around it, separated as some of these latter are merely by a strip of garden, have never been known to have caught the slightest infection from any hospital patient; and this tale holds good for all other fever hospitals, if managed with the commonest attention to hygiene.

Let us, then, hope that the citizens of Hampstead may pluck up heart of grace, and think that they inhabit a piece of the earth which has not been made only for themselves and their families, but which, from its vicinity to our huge

and teeming metropolis, is the natural sanitarium of all of us when sick and unable to be removed to a distance. To live for others is a Christian duty, and must not be forgotten even in the wilds of Hampstead Heath. England expects Hampstead, as well as every man and woman, to do its duty to the poor and suffering.

## THE ACTION OF DRUGS.

### VII.

THE next part of the labours of the Edinburgh Committee enters upon newer ground, and is deserving of careful attention. Professor Hughes Bennett proceeds to record the various experiments undertaken by the Committee to ascertain the antagonism between tea, coffee, cocaine, theine, caffeine, and guaranine, on the one hand, and morphia on the other, and this investigation was divided into three parts: 1. An inquiry into the physiological properties of cocaine, the active principle of the plant known as *Erythroxylin coca*, of theine, of caffeine, and of guaranine; 2. An inquiry to ascertain whether or not the active principles theine, caffeine, and guaranine, act as antagonists to fatal doses of morphia or opium; and 3. An inquiry to ascertain whether or not strong infusion of tea or decoction of coffee, when introduced into the stomach, act as antagonists to fatal doses of morphia or opium.

As but little, if anything, is known of the physiological action of these substances, the Committee wisely set to work to increase their knowledge in that direction first, and have placed on record a series of highly interesting and highly important experiments which will serve as a guide both to future experimenters, and also be of practical value to the scientific therapist, who must often wish that he had as complete a record of the physiological action of drugs in daily use, so that he might be able to redeem his art from the stigma of empiricism. If, instead of seeking fresh woods and pastures new for remedies to combat the ills that flesh is heir to, we were to institute a series of experiments to ascertain the physiological properties of those we have now in use, we might then hope to arrive in time at some definite and satisfactory mode of treating disease, and not be obliged to fly to every fresh medicine which, patronised by some fashionable physician, is ushered into the medical world as a panacea for all forms of disease, and, after having been tried and found wanting, is rejected and forgotten, only to come up again as a novelty some hundred years hence. Instead of being content with the statement of (probably) some empiric that such a drug is a powerful "diuretic," "narcotic," or "purgative," why not let some authorised person or committee be deputed to ascertain its full physiological properties before including it amongst our remedial agents and giving it a place in our Pharmacopœia? Thus we should know what each drug could and what it could not do, and blind faith would then give place to knowledge. But, after this digression, let us return to the experiments now under consideration.

The general results from thirty experiments on frogs, mice, and rabbits, as to the physiological action of cocaine, were as follows:—

1. The physiological actions of erythroxylin coca are due to its proximate principle, cocaine.

2. Cocaine is a powerful poison, inducing a series of symptoms affecting the nervous, respiratory, circulatory,

and vaso-motor systems, which terminate, if the dose be large enough, in death.

3. Cocaine, in small doses not ending fatally, produces—1, cerebral excitement, not succeeded by coma; and 2, partial loss of sensibility.

4. In large doses, cocaine produces—1, cerebral excitement; 2, complete paralysis of sensibility; 3, tetanic spasms and convulsions; and 4, death.

5. Cocaine paralyses the entire posterior columns of the spinal cord, also the entire system of peripheral sensory nerves; but the anterior columns of the cord and the peripheral motor nerves are not paralysed.

6. Cocaine frequently produces convulsions of a clonic character; but occasionally it causes tetanic spasms, which latter are sometimes so severe as to produce opisthotonos. There is, at first sight, a resemblance between these spasms and those following the administration of strychnine; but, in the case of strychnine, the action of the poison is limited to the spinal cord, the reflex function of which is so much excited that the slightest touch from without causes powerful spasms. A poisonous dose of cocaine, on the other hand, paralyses the sensory nerves, so that external irritations do not affect the cord; but, notwithstanding, there are strong spontaneous spasms, which are probably caused by the reflex action of the drug on the cord itself, and which spasms are not to be considered as reflex in their nature.

7. Cocaine does not produce muscular paralysis.

8. Cocaine at first increases, then impedes, and lastly stops, respiration.

9. Cocaine at first increases, and finally diminishes, both the force and frequency of the heart's contractions.

10. Cocaine produces at first contraction, afterwards dilatation or paralysis, of the capillaries and small blood-vessels, with stasis of the blood, indicating first irritation and subsequent paralysis of the vaso-motor nerves. This action of cocaine upon the capillary blood-vessels, now described for the first time, is of great interest, as it simulates the action of the drug in this respect to that of nitrite of amyl described by Dr. Richardson.

The experiments contained in Table 35 show a very small quantity of cocaine is sufficient to kill a mouse as compared with a frog, for 1-32nd of a grain proved fatal to a mouse, while a frog recovered from 1-16th of a grain (Experiments 384, 386, 387), but succumbed to 1-12th (Experiment 388); but there would seem to be difference in tolerance of drugs amongst frogs as well as men, for the frogs used in the Experiments 395-396 died after 1-32nd of a grain; but why, we are not told.

The rabbit used in Experiment 394 took in all 12 grains in divided doses, but recovered, although the physiological effects were pretty well marked, for, from first dose there was congestion of ears; from second dose, slight cerebral excitement; from third dose, great irritability, no loss of sensibility; from fourth dose, congestion of ears increased; from fifth dose, depression, staggering gait. Numbers of respirations and pulsations of the heart—1st increased, and 2nd diminished. Temperature: 1st diminished, and 2nd increased.

The Committee next investigated the physiological properties of extract of coca, and found that a mouse succumbed to 2 grains; a frog recovered from 2½ grains, but was killed by 3 grains; while a rabbit took 12 grains without any apparent effect. In Tables 37 to 49 the effect of cocaine, caffeine, and theine on the respiration, cardiac pulsations, and temperature are recorded, and we find that they bear out the conclusions we have already quoted; but there is one point not included in those conclusions to which we wish to draw attention—viz., the effect produced



upon the temperature by these drugs. In Table 43, after the injection of theine, the temperature in a rabbit rose from 33.2 C. to 35.5 C., and gradually fell to 33.9 C. (the normal temperature is stated to be 33.8 C.), and in Experiment 394 we are told the temperature is first diminished and then increased after the injection of cocaine. In Table 46 we see that, after the injection of caffeine, the temperature rose to 36.6 C.; and (Table 49) after the injection of guaranine the temperature rose to 35 C. It is thus evident that theine, caffeine, and guaranine tend to raise the temperature above the normal, and it is stated that cocaine first diminishes but then raises the temperature; theine and guaranine seem also at first to reduce the temperature. The question we naturally ask is, Is this a property peculiar to these drugs, or is it a property common to most drugs when introduced into the healthy system? For we find it stated in Messrs. Burness and Mavor's (a) work that they experimented with various drugs, and observed that in the horse tincture of *datura tatula* raised the temperature from 99 4-5ths F. to 100 3-5ths F.; acetate of morphia in 4 grain doses raised the temperature from 99 4-5ths F. to 100 3-5ths F., and then it fell to 100 2-5ths F., and remained thus for 24 hours. One-quarter of a grain of atropia raised the temperature from 99 3-5ths F. to 100 4-5ths F., and did not fall to 99 3-5ths F. till the third day; one drachm of opium followed by a quarter of a grain of atropia raised the temperature to 105° F.; whilst one drachm of bichromate of potash raised the temperature from 100 1-5th F. to 106 1-5th F. in 4 hours.

These experimenters conclude, that various non-nutritious agents introduced into the system in health, by producing deranged function, tend to raise temperature; they, however, state there are certain drugs which lower temperature, such as chloral, &c.

We call attention to the above experiments, as this point is worthy of notice by those who are investigating the effects of drugs, and have thus opportunities of noting the effects produced upon temperature.

From their experiments with theine, caffeine, and guaranine, the Committee conclude that their physiological effects are identical with cocaine. They, however, conducted a series of experiments with theine on frogs, rabbits, and cats, which are also fully reported, and to which we direct our readers' attention, only quoting the concluding remarks of the report, which are as follows:—

From these experiments, and those in the Tables 50, 51, and 52, the general conclusion may be drawn, that, as cocaine, theine, caffeine, and guaranine chemically resemble one another, so do their physiological actions seem precisely similar.

Numerous observations made on larger animals (cats and rabbits) with the three last substances demonstrated the following facts, in addition to those already determined with cocaine:—

1. These three alkaloids—theine, caffeine, and guaranine—produce an increase of the salivary secretion.
2. They produce a peculiar form of tenesmus, accompanied by a copious discharge of clear mucus from the bowels.
3. They usually produce contraction of the pupil.
4. They affect the temperature by (1) slightly lowering and (2) increasing it.

Although we have not been able to demonstrate that

these four properties also belong to cocaine, we have every reason to believe, judging from their other analogies, that if similar doses of it were given the same results would ensue.

### CONJOINT EXAMINATION AND ITS PROSPECTS.

ALTHOUGH more than six months have elapsed since the proposition for Conjoint Schemes of Examination were prominently before our readers in these columns, the approach of a Parliamentary resurrection once again calls the attention of medical politicians to the subject, and re-animates medical reformers in the pursuit of that hoped-for condition of affairs which seemed to have eluded their grasp last May.

Those who have not kept the matter in view may need to be reminded that at the date of our last report the Apothecaries' Company and the University of London had obtained from Parliament legislative authority to co-operate with the Colleges in the Scheme for Conjoint Examination for England—the "Reference Committee" had reported "gushingly" in favour of the proposal—most details of arrangement had been decided upon—nothing appeared wanting but to recite the prologue and send up the curtain; and we were actually promised the disclosure of the first scene within a month or six weeks.

So much for England. In Scotland, and in the Queen's University of Ireland, the licensing bodies were terror-stricken by the prospect of their "craft" of cheap-diploma vending being "set at nought." All was confusion in the northern camp, and nothing was decided upon, except the very hearty mutual understanding amongst the corporations that anything in the way of improvement in examination and in the status of the profession should be resisted shoulder to shoulder, and by every tactical method which diplomacy might suggest. Delays, special pleading, open antagonism, legal ruses, all or any means were to be used to keep alive for another year or two the money-making Scotch trade in cheap and easy diplomas.

In Ireland the effort at a self-reform of the corporations looked almost as promising as in England. The University of Dublin, the two Colleges, and the Apothecaries' Hall had entered into a practicable and mutually beneficial compact, and all was ready for a matter-of-course application to Parliament for legal authority for their acts. The examiners were already appointed, the fees fixed, and even the hours of examination anticipated, and we were promised a complete system of unified examination in a few months.

Those who read the foregoing recapitulation of the expectations of medical reform a few months since will hardly realise that the present state of affairs can have been the outcome of such loud-spoken promises; nor will they entertain a very exalted opinion of the sincerity of conviction of those who spoke so trumpet-tongued in favour of Conjoint Examination as recently as last May.

In Scotland, indeed, and in the Irish Queen's University, community of interest has ensured steadfastness of purpose, and no one has flinched from the homely determination to defend, at all hazards, the common pocket interest. Indeed, it may be safely predicated by anyone who studies

(a) "Specific Action of Drugs," p. 28.

the Scotch character, or who knows how foreign to enlarged ideas of medical reform is the cheap diploma line of business, that this unanimity of opposition will continue, and that if Conjoint Examinations are to be the qualifying system of the future, they must be so constituted in spite of the violent resistance of the bodies which exist by the abuses of the unreformed condition of affairs. The cheap diploma grantors indeed openly plead that, as there must always be "dirty butter for servants"—partly educated and inferior classed practitioners for beggarly districts—they ought to be allowed to supply the market with this class of goods, and that it would be a universal evil to withhold the services of semi-competent medical men from that class of the public who cannot pay for fully educated advisers.

In England the obstruction to Conjoint Examination, if less sincere, has become somewhat influential. The Council of the London College of Surgeons, which had expressed unbounded rapture at the prospect of self-reform, has cooled upon its intention. It is not the way of councils to express plainly their vacillations of opinion, but they have an equally efficient, and perhaps less humiliating way of effecting the same object. The Council of the London College suddenly discovered that there were legal difficulties in the way of a fusion—impediments of which for two years they had taken no heed, but which were at the right moment brought out and erected into a barricade to bar the way of advancing reformers. This policy once decided on, there was the usual references to a committee, and reports back to council, and consultations with law officers, and so effectually has the obstruction been managed that the question is now where it was last February, and we hear that another enabling act is to be passed in the coming session of Parliament to clear the way.

In Ireland the case is still less satisfactory, and still less creditable to those who carried the banner of Conjoint Examination. As we have said, the arrangements had reached their final stage when it became evident that the question of a reduction in the number of lectures and fees required from the student should be dealt with. Everyone was aware that a curtailment of compulsory certificates, and consequently of professional fees, was absolutely inevitable; but it seemed that the lecturing and grinding interest had but newly awakened to this necessity. Accordingly, the trumpet was sounded to arms by some of those who had been consentients to the previous arrangements. Secret meetings were held, and secret pledges given, and a *coup* was thereby effected at the election of Council for the College of Surgeons, which placed upon the administration several avowed exponents of the anti-reform interest. One of the most outspoken advocates of improvement lost his seat, and the remaining band, although numerically in a great majority on the Council, were so scared at the vigour of the "grinding" onset that their war cry has since been unheard.

This narrative is an instructive one, and one which goes far to justify the policy of the ultra-radical party, whose platform it is to reform the profession over the bodies of the corporate bodies.

We entertained, we confess, a confidence which we hope will not turn out to have been misplaced, that the men who had staked their names and their characters upon their

sincerity in the cause of Conjoint Examination valued their convictions more than their places, and would be ready to sustain their opinions in defiance of all the individual interests which must necessarily intervene in the settlement of such a matter.

It would ill-become such men to accept as inevitable a corrupt and moribund system because it is sustained by a clamorous crowd of interested belligerents. We venture to remind the advocates of corporate self-reform that the hour has come for them to renew their efforts, and that, if they are discouraged in doing so, they place a weapon in the hands of the sweeping revolutionists of the medical qualifying system which they will not be slow to use.

## Notes on Current Topics.

### Chinese Opium-eaters.

A GREAT increase is reported of the quantity of opium imported into China, and the consumption of this dangerous poison seems all but universal in China. It appears that many persons are not apparently much damaged in health from the use of opium. The authorities occasionally issue edicts forbidding the use of opium. Tobacco and opium smoking are wonderful facts in an age which promises to be so eager in its cultivation of public hygiene.

### Medical Fees.

A CASE came recently before the Court at Brighton, when a practitioner of that city brought an action against a certain Mr. Reynolds to recover fees, charged at the rate of seven shillings a visit. The judge said that if the plaintiff were a physician, and practising as such, he was entitled to be paid according to the remuneration of physicians. A verdict was given for the plaintiff.

### The Navy Blue-Book.

MEDICAL officers of the Navy, says Dr. Mackay, continue to praise the Contagious Diseases Acts. At the Cape of Good Hope and at Bombay, where the Acts have been repealed, the spread of disease has been marked; and this holds good for Port Royal, Jamaica, where the Acts have been suspended. At Hong Kong it is said that disease has been reduced to a minimum.

An epidemic of yellow fever occurred at Port Royal, Jamaica, in 1873. Of 43 cases of this disease, 27 proved fatal. Yellow fever also prevailed at Rio de Janeiro. Dysentery prevailed in the Pacific squadron, as also off the African Coast. The ratio of mortality in the whole navy was only 6 per 1000, and in 1872 it was 5.6 per 1000.

### Malignant Tumour of the Cerebellum.

DR. MORGAN, of Manchester, showed at the Manchester Medical Society, in October last, a malignant tumour of the cerebellum. The patient, æt. 45, was admitted into hospital on February 16, and the chief symptoms were dizziness, headache, vomiting, and constipation, sometimes for a week at a time. There was double optic neuritis, and the patient died comatose. A tumour the size of a pigeon's egg was found involving the left cerebellar lobe, en-

croaching on the corresponding side of the medulla, so as almost to obliterate it, and extending into the fourth ventricle. The tumour was contained in a distinct sac, which had a delicate lining membrane, and out of which a quantity of apparently puriform fluid escaped. This, when examined microscopically, consisted of granules and cells of various sizes, with granular contents. The harder portions of the tumour were made up of cells of rounded shape, and containing one or more nucleolated nuclei. These cells were separated by fine intercellular substance, and closely packed in spaces formed by the blood-vessels.

### Poisoned by Cigar-smoking.

In the *Journal des Connaissances Médicales* of MM. Caffé and Cornil we read the following: M. Prof. Chevallier reports in his journal the case of a young man who made a wager that he could smoke twelve cigars, and forthwith went to work to do so. At the eighth cigar he began to experience suffering, at the ninth chills and flushes supervened, which symptoms became worse at the tenth cigar. He, however, refused to stop, and went homeward. On arriving at home he had pains in the bowels, and vomiting, and died in the night. He is said to have suffered from cardio hypertrophy.

### Treatment of Diabetes.

DR. GEORGE BALFOUR, of Edinburgh, gives as diet in diabetes skim milk, meat, and large doses of lactic acid, three to nine drachms daily. In seven cases two were completely cured, two died of phthisis, two went away, and in the last case death occurred in two years, after great benefit for a time. Drs. Ebstein and Müller, of Breslau, recommend carbolic acid in the second stage of diabetes, as much as six grains a day; but Balfour has found this not to be of much use.

### The Proposed Charter of the Irish College of Physicians.

At a meeting of the College held last week, a reply drawn up by a committee appointed to answer the dissent from the proposed supplemental charter was considered. It was resolved to forward the reply to Sir Michael Hicks Beach. The *Freeman's Journal* has heard that at a meeting of the College on the 14th inst. a resolution was passed censuring the conduct of some of the Fellows who communicated their dissent from the proposed charter directly to the Government. As this vote of censure was irregular for want of due notice to the College and to the Fellows implicated, a formal notice of motion to censure the supposed offending Fellows was given, and will be discussed by the College at its January meeting.

### The late Dr. William Hargrave.

At the last meeting of the Governors of the City of Dublin Hospital the following resolution was passed unanimously:—"That this Board desire to express their deep condolence with the family of the late Dr. Hargrave upon the decease of one who was for thirty-six years a valuable and honoured member of this Board, most constant in his attendance, and ever zealous for the welfare and prosperity of the City of Dublin Hospital."

### Adulteration Defined.

It seems to have defied the ingenuity of legislators and bill-drawers to fix an intelligible definition for adulteration. Is it "adulteration" to sophisticate a product with an innocuous article? or with an addition which is admittedly an improvement? or to add minute quantities of anything for the purpose of flavouring? or to abstract from an article any of its constituents, as in the case of skim milk.

The Society of Analysts have had constant experience of the failure of prosecutions resulting from the ambiguity of the words of the Act, and they have consequently set themselves to work to frame a definition. They have, after much anxious debate, resolved—

"That the following having been unanimously agreed to by the Committee appointed for the purpose, is considered as a fair definition of an adulterated article, and they recommend it to the Council of the Society as one which may advantageously be adopted as a guide."

### PROPOSED DEFINITION.

An article shall be deemed to be adulterated:—

#### A. In the case of food or drink:—

1. If it contain any ingredient which may render such article injurious to the health of a consumer.
2. If it contain any substance that sensibly increases its weight, bulk, or strength, unless the presence of such substance be due to circumstances necessarily appertaining to its collection or manufacture, or be necessary for its preservation, or be acknowledged at the time of sale.
3. If any important constituent has been wholly or in part abstracted, without acknowledgment being made at the time of sale.
4. If it be a colourable imitation of, or be sold under the name of, another article.

#### B. In the case of drugs:—

1. If when retailed for medicinal purposes under a name recognised in the British Pharmacopœia, it be not equal in strength and purity to the standard laid down in that work.
2. If when sold under a name not recognised in the British Pharmacopœia, it differs materially from the professed standard.

Proposed standards or limits for milk, skim-milk, butter, tea, cocoa, and vinegar were then given.

It was stated by speakers on the occasion that, although fraud was in most cases the obvious intention of the vendors of adulterated articles, still the introduction of the word "fraudulent" into the Act had rendered nugatory very many prosecutions under it, because neither juries nor magistrates were willing to find a trader guilty of intentional frauds. We all know what we mean by an adulteration, which, for our own purposes, we may define to be "when a rogue adds to or takes from the article which he sells in order to cheat his customer," but, unfortunately, these sort of common sense definitions won't do for legal purposes.

Apocryph of this subject, we note that at Bradford, last week, several persons were summoned for selling adulterated pepper. In none of the cases were the articles used for the adulteration injurious to health, but the adulterations varied from 20 to 30 and from 40 to 75 per cent. The principal commodity used to mix with the pepper was peameal, which may be had at about 1d. per lb.

### Prosecution by the Excise Authorities at Hull.

A PROSECUTION has been instituted by the excise authorities at Hull which involves in principle some of the important interests of the profession.

A chemist was summoned for retailing certain spirits, to wit, spirits contained in a certain compound called "pick-me-up," without his having a licence to sell excisable liquors. A bottle of it was purchased by the excise officer, and it was sent for analysis to London. The mixture was then found to contain 67·7 of proof spirit, and was flavoured with ginger, orange peel, and gentian. In consequence of the amount of proof spirit being found in the mixture, the excise authorities had brought the case into Court. The Crown counsel said that he was told that the gin and bitters sold by the publican did not contain more than 40 per cent. of spirit, and in the event of this being so, the defendant would, he contended, be liable for selling spirit without a licence.

The defence was that the "pick-me-up" was not a beverage, but was a medicinal tincture and similar in taste and quality to the tr. gentian co., and that the chemist was as much entitled to sell it, no matter how much spirit it contained, as to sell any Pharmacopoeial tincture. The case was eventually adjourned, and we shall report the decision of the Bench in our next. Meanwhile, an influential meeting of the chemists and druggists of Hull has been held to take the matter into consideration. The commencement of such a prosecution, without previous notice, was thought to be a harsh and oppressive proceeding, and a resolution was passed "to take such steps in the general interests of the trade as may be deemed necessary in defending the case and obtaining a clear definition of the law upon the subject."

Little as we can sympathise with those who drive a trade in stimulants intended as an habitual remedy for the effects of beastly drunkenness over-night, we cannot see how such a prosecution is tenable at all. It was sworn to and obvious that the "pick-me-up" was nauseous in taste and to be taken only in small quantities, and we cannot conceive how the excise authorities can control that it is anything but a bitter tincture, made up for curative purposes. If the defendant were convicted it would seem to follow logically that no preparation used for restorative or tonic or even sedative purposes, except those formulated in the British Pharmacopoeia, could be legally sold by an unlicensed dealer as long as the proportion of spirit present exceeded the excise standard.

### Labourers' Dwellings in Ireland.

It is not for the information of Irish Poor-law medical officers, but for the perusal of "centres of intelligence," *vulgo*, Poor-law guardians, that we quote the following official reports of the registrars of Irish dispensary districts upon their sanitary condition. The excerpts are only a few of the most moving, but if we should undertake to reprint all the denunciations of the sanitation of Ireland we should be prepared to reproduce the entire report. The Registrar of Castlegregory District, Co. Cork, says:—

Fever was prevalent, only one case terminating fatally. She was the wife of one of the most respectable and opulent

farmers in the district; notwithstanding which, when I first visited her in illness, I found the house so filthy and so full of stench from numerous pigs kept inside, that it would not have been wonderful if every human inmate had died. Her father-in-law, sister-in-law, and a third person who frequently visited the house, had, immediately before her illness been suffering from large purulent deposits in various parts of their bodies.

*Goleen, Co. Cork.*—Fever of a low type is now prevalent, and I very much regret to say that I fear my next return of deaths will be considerably over the average. The sanitary state of the district is worse than ever, and shamefully neglected. The universal practice of medical men is, when they go into one of the sick dens to visit fever or other patients, to have the doors thrown open; but I must have the doors closed, as, bad as is the place inside, the stench from the cesspools is positively intolerable.

*Keadue, Co. Roscommon.*—Scarlatina and whooping-cough have been very prevalent. The sanitary condition of most of the dwellings of the poor in this district is much neglected, cows, pigs, and horses being lodged in the houses, which are in general small, ill-ventilated, dirty, over-crowded, without sewerage, and having cesspools before the door, and the people themselves are perfectly ignorant of the use of disinfectants, and careless in cases of infectious disease.

*Scrubby, Co. Longford.*—Deaths this quarter are above the average. I fear the scarlatina was greatly spread by want of proper sanitary arrangements in the district. In some of the houses I have seen a pig-house built in a corner of the kitchen or principal apartment of the house, and a patient in scarlatina in a bed beside it, a goat tied in another corner, and a cesspool in front of the house; indeed, in a great number of houses in the remote parts of the district, it is a common thing to see the family living in the same house with the cattle.

*Ballynacarrigy, Co. Westmeath.*—Deaths over the average. The sanitary condition of the dwellings of the small farmer and labouring classes is simply shocking; stagnant cesspools, uncleaned pig and fowl houses, and dirt in every form abound on all sides and form a ready *nidus* for the production and propagation of every zymotic disorder in its most aggravated type.

These are the sort of localities in which the guardians think that 6½d. a day is plentiful payment for the medical officer of health, and in which the dispensary doctor is supposed to earn his 3s. 6d. a week by acting as sanitary detective amongst his own patients.

### University of Edinburgh—Additional Examiners in Medicine.

NOTICE has been given that the Court of the University of Edinburgh will proceed to the appointment of additional examiners in medicine under the system introduced by an alteration of ordinances last year.

The divisions and subjects of the examinations are:—

1. Chemistry, botany, and natural history; 2. Anatomy, institutes of medicine, materia medica, and pathology; 3. Surgery, practice of medicine, midwifery, and medical jurisprudence; and, 4. Clinical medicine and clinical surgery.

Persons may be appointed to examine in two of the above subjects, but not more, and not to more than one in the same division.

The fee is £50 for each subject of examination.

The appointments are annual, but persons may be re-appointed annually for five consecutive years.

DR. JOHN HOMES, of Brighton, has been elected on the School Board of that city. It is evidently of the greatest importance that many medical men should become directors of the new educational establishments springing up around us.

### The Dangers of Anæsthetics.

A CASE of death from bichloride of methylene is reported from the Moorfields Ophthalmic Hospital, and one from chloroform in the Royal Free Hospital. If the published statements are to be depended on, the cases were in all respects suitable for their administration, and the cause of death was inexplicable—syncope—and, if this be so, the dangers of these anæsthetics are all the more serious. It would be more encouraging to patients and administrators if there had been some obvious bungle which could, in future, be avoided. The ether revival seems to have died out; not, we imagine, in consequence of the short-comings of that agent, but because it is not found "to pay" to take trouble about the saving of an occasional life.

### The Effect of the Scarlatina Epidemic in Ireland upon the Death-rate.

It appears from the last official reports that the deaths registered in Ireland during the quarter ended 30th September last, amounted to an annual ratio of 14·8 per 1,000 of the population, which rate is 1 per 1,000 over the average for the third quarter of the preceding five years.

The deaths registered in Leinster during the quarter afford an annual rate of 17·6 in every 1,000, in Munster 13·9, in Ulster 14·9, and in Connaught 11·7 per 1,000.

The death-rate was highest in the following counties:—Dublin 23·1 per 1,000, Antrim 19·0, Westmeath 18·7, Carlow 18·1, Armagh 16·3, and Longford 16·0. The registered mortality was lowest in Leitrim and Sligo, in each of which the rate represented was 10·6 per 1,000; Mayo, in which it was 11·4, Kerry and Roscommon each 11·9, and Cavan 12·0 per 1,000.

The number of deaths in Ireland is 365 in excess of the number during the corresponding period of last year. The Registrar-General's remarks that the sanitary condition of the country is in a very unsatisfactory state, is fully evidenced by the fact of the increased mortality having resulted from seven of the principal zymotic diseases, the deaths from which exceeded by 682 those registered in the corresponding quarter of 1873, and by 172 those in the second quarter of the present year.

Scarlet fever, which has been epidemic for more than twelve months, instead of manifesting any symptoms of abatement, continues its fatal progress with increased malignity. The deaths from scarlet fever registered during the past quarter numbered 976, showing an increased mortality of 245 as compared with the preceding quarter, and of 568 as compared with the corresponding quarter of last year. The disease prevailed chiefly in the provinces of Leinster and Ulster; in the former province the deaths from scarlet fever amounted to 460, and in the latter to 392; whereas in Munster and Connaught only 64 and 60 deaths were respectively the result of this disease. Some of those attacked by scarlet fever succumbed to the disease within a few hours; in a few instances two, three, and four members of the same family were cut off.

### Malta and its Sanitary State.

IN 1871 the population of Malta was 123,373 to ninety-five square miles of territory. The average rate of mortality was 28 per 1,000 for the last ten years. Lately it

has been very healthy, and had a death-rate of only 22·4 in 1873. There is a good deal of poverty in the island, and there is a deficiency of pure water. Overcrowding in its worst form is the usual concomitant of poverty and over-population. Every one says the same now-a-days. But how to remedy poverty and over-population?

### Dr. Parkes Report on Hygiene for 1872.

DR. PARKES, of Netley, in his Report in the Annual Army Medical-Blue-Book, dwells on the additional evidence given of late to show how typhoid fever is occasionally introduced by the medium of milk, and also by clothes soiled by discharges from patients, and hints that other undetected methods for the entrance of the poison may be discovered. This disease has so long an incubation period, about thirty days in some cases, that it is difficult to remember how it arose in many cases.

### Deaths from Methylene and Chloroform.

WE notice the record of no less than three deaths from anæsthetics in journals before us this week. A death from the inhalation of methylene occurred a few days ago at the Royal London Ophthalmic Hospital in a young woman, aged 25, affected with caries of bone near the lachrymal sac. Mr. Buller, whose experience is great, administered the anæsthetic bichloride of methylene by means of a perforated leather inhaler covered with flannel. Three drachms were inhaled, and in two minutes the breathing became stertorous. After the operation, the pulse at the wrist suddenly failed, and then the respiration ceased. The tongue was dragged forward, and Sylvester's method of artificial respiration was made use of for forty minutes, but the patient was dead.

### Typhoid Fever at Oxford.

THE death of a son of Mr. Samuel Laing, the great financier, of typhoid fever contracted at Oxford, will, no doubt, call attention again to the causes of this mysterious disease. It seems that the water supply and drainage of Oxford are both most faulty.

OUR readers will admit that we have done our best to get occasionally a little fun out of that lugubrious subject, the Irish poor-law, and we must confess that our success has been usually rather indifferent.

Our most jocose efforts have been reduced to ignominious eclipse in the last week by a gentleman who, as far as we know his utterances, is not commonly charged with special wit—we mean Mr. Byrne, the gentleman who assumes the dictatorship of the sanitary organisation of Dublin, and especially of the North Union. As the mighty Dan O'Connell left behind him a legacy of soubriquets which have stuck to their owners like a "mother's mark," and have left in our memory the names of "Vinegar" Smith, "Shave Beggar" Morpeth, and other historic personages, so Mr. Byrne has christened the class to which he himself belongs the Irish Board of Guardians with an inefaceable title. At the last meeting of the North Guardians he denounced the Local Government Board for their audacious dictation to the "*centres of intelligence*," the Dublin Guardians.

The epigram is infinitely amusing to those who know all

about the constitution and character of Irish Boards, and lest Mr. Byrne's *bon mot* may be lost to posterity, we suggest that he receive the title of the "Head Centre."

THE Winter Assizes at Lewes will not be held this year, on account of the prevalence of typhoid fever in that town.

TWENTY appointments in the Indian Medical Service will be thrown open in February next. Applications as to the regulations to be made at the India Office.

A NEW provident dispensary, the Kilburn Provident Medical Institution, is to be opened in January, 1875.

A LECTURESHIP in Aural Surgery is talked of as likely to be founded in Glasgow.

IN the county of Banff, in Scotland, about one-fifth of all children born are said to be illegitimate.

THE subject for the Dublin Pathological Society's Gold Medal for the session 1874-75, is "The Human Entozoa."

AT the November examinations of the Pharmaceutical Society of England for the Minor only four out of fifteen were successful.

DR. KEITH, of Edinburgh, is said to have performed ovariectomy now 196 times, with the low mortality of late years of only some 10 per cent. of the cases operated upon.

DR. HENRY BENNET's admirable work entitled "Winter and Spring on the Shores of the Mediterranean," has reached its fifth edition.

SIR GARNET WOLSELEY is of opinion that ere long compulsory military conscription will be the only way of obtaining efficient able-bodied young men.

IN London during the past week, 2,257 births and 2,082 deaths were registered. The births were 62 below, whereas the deaths exceeded by 356 the average numbers in the corresponding week of the last ten years. The annual death-rate from all causes, which in the seven preceding weeks had steadily increased from 20 to 23 per 1,000, was last week equal to 32.

AT a meeting of the Metropolitan Asylums Board, on Saturday, Dr. Brewer in the chair, it was decided that, as the Board had not yet been furnished with the evidence of the necessity of such a large building, and they were about to issue new regulations which it was hoped would lessen the pressure on existing accommodation, they hoped it would prove unnecessary to impose upon metropolitan ratepayers the expenditure involved in the erection of a third asylum. The cost of the proposed building would have exceeded a quarter of a million sterling.

## Foreign Medical Literature.

### IMPROVEMENTS IN THE OPERATION FOR RECTO-VAGINAL FISTULA.

(Translated from *l'Union Méd.* by F. M. LUTHER, M.D.)

AT the close of the last meeting of the Société de Chirurgie, on the 4th of November, M. Tillaux exhibited an instrument fabricated by M. Colin, intended to facilitate the operation for recto-vaginal fistula. Constructed on the principle of Desmarre's forceps for the enucleation of cysts from the eyelids, the instrument is composed of two blades, the one in the form of a ring, the other solid. One is introduced into the rectum, the other into the vagina, and both, when approximated, limit the borders of the fistula, which they allow to be pared without the loss of a drop of blood, and even to have the sutures introduced; for the solid blade is concave, and furnished with a horn-plate, which allows the passage of the needles and thread. One may, in a word, by aid of this instrument, operate upon recto-vaginal fistulas as upon fistulas upon the surface of the body. (a)

On the occasion of the presentation of this instrument by M. Tillaux, M. Démarquay described a new method of operation for recto-vaginal fistula by which he recently obtained excellent results.

M. Démarquay had had occasion to make a series of operations for the cure of recto-vaginal fistulas, and those operations had not been successful. The cause of those failures was due to two things—first, to the accumulation of feces in the large intestine; secondly, to their volume and hardness, and especially to the resistance of the anus when they have to be evacuated. During the efforts of defecation the cicatrix gives way either wholly or partially, and the contents of the bowel pass again into the vagina.

There was, besides, an anatomical condition of failure; it was the tension in the transverse direction of the lower wall of the vagina.

In order to obviate these causes of failure, M. Démarquay adopted the following method with a young woman suffering from a large recto-vaginal fistula, produced by an awkward slip of a cutting instrument in the removal of a uterine polypus.

The operation is divided into two stages.

The first stage consists in cutting through the posterior wall of the rectum, as in the operation for fistula in ano, as far as the coccyx. This, in the first place, relaxes considerably the posterior wall of the vagina; and, secondly, it allows one to operate on the fistula through the rectum, having it completely in view; thirdly, and lastly, it allows the contents of the bowel to escape freely.

The second stage, or the operation properly so called, comprehends several details: first, the edges of the fistula are very freely pared by oblique cuts, as in the operation for vesico-vaginal fistula by the American procedure; secondly, the edges having been freely pared and the flow of blood arrested, M. Démarquay inserts one metallic suture by means of Blandin's curved needles, passing it through the posterior wall of the vagina; he unites the cut surfaces completely by a number of points of suture, of which the threads are knotted (b) in the vagina, as in vesico-vaginal fistula. This is easily done, by reason of the relaxation of the parts consequent on the deep incision of the sphincter. Thanks to this incision, not only do the contents of the large intestine remain but a short time in it, but their evacuation is easily effected, when necessary, by the aid of a gentle laxative.

(a) A ciel ouvert! How? unless the fistula can be everted through the anus?

(b) *Tordus*, twisted. Query—Are those metallic sutures also, or silk threads? The former most likely.



Injectations of cold water are made each morning into the vagina. As there is no tension in the reunited parts, the threads may be left in as long as you like. M. Démarquay proposes to leave them in eight or ten days.

As to the first step of the operation, which consists in incising deeply the margin of the anus, what takes place is this. Little by little the wound cicatrises, and heals perfectly, just as in the operation for fistula in ano.

M. Démarquay's patient got cured of her fistula, and of the preliminary operation. She retained the contents of the bowels as well as if the sphincter had not been cut through.

To those who may consider the preliminary operation proposed by M. Démarquay serious, the author of this method replies that he has often performed it with the view of facilitating operations on the rectum, and that it was unattended by any disagreeable consequences; and then, adds M. Démarquay, is there any infirmity more disgusting for a young woman than a vesico-vaginal fistula and must she not be cured of it at any cost?

## Literature.

### A PRACTICAL TREATISE ON ECZEMA. (a)

WE have read this volume with interest. It relates to a disease of the skin with which most of us are very familiar, and with which our author also seems to have had a large experience. It is rare that any single disease gets an entire volume to itself; but so it is here. Of late, indeed, the attention which has been given to diseases of the skin is something remarkable, and a whole library of works on the subject, we might almost say, has suddenly appeared. We are not sure that the improvement in the practical part of the subject has been at all commensurate with the number of works which have appeared. There has been a great straining to make out new forms of skin disease, and many disputings as to the way skin diseases, eczema amongst the rest, begin. For ourselves, we think great labour and precious time have been lost on these questions, and we could name writers who appear to us to have lost themselves in this kind of pursuit. Our author enters at some length into the question how eczema begins, and states that its various forms may coexist; and in this we quite concur with him. The only distinction which seems to us worthy of notice, is as to whether the disease be acute or chronic; but whether it begin as a vesicle, papule, or pustule, does not, we repeat, appear to us of the slightest moment.

It is not our intention to follow the author through the several chapters, including the symptoms, anatomical lesions, causes, diagnosis, prognosis, and treatment; we must refer our readers to the volume itself for these details: but, whilst reading the work, one or two points of a general character struck us as calling for some notice—thus, at p. 79, the author speaks of the safety of curing eczema, and uses the following expression in reference to this point: "A great deal of nonsense had been written about the danger of suddenly driving in (as the expression goes) a severe or chronic eruption, such as eczema;" and then he goes on to say that "slightly unpleasant effects are occasionally witnessed," so that he blows hot and cold with the same breath. Now, we would warn our readers of the danger of following this advice, even were it possible to follow it to the letter, which we believe it is not; and as to the word "nonsense," we consider it quite out of place. There are the best grounds for knowing that the curing of a skin disease, and especially such a one as

eczema, known to have such a constitutional origin, cannot, nor ought not, to be suddenly cured. That eczema very often relieves the system by its appearance, does not admit a doubt. In the young its sudden suppression has been followed by water on the brain, and here the disease had been confined to the head; and in after-life, when the gouty poison is so often mixed up with the eczema, we have known bad effects at once follow the disappearance of the rash. We have seen pemphigus make its appearance, and confined exclusively to the parts where the eczema had been. Violent cramps, too, are not uncommon under similar circumstances; and we have seen most obstinate cough and some forms of dyspepsia also come on. Everyone, too, must have known bad effects follow the drying up of what seemed at the moment a very trivial discharge. This subject might be pursued very much further, but such is not called for here; and we would only add that, on this point of the drying up or curing such a disease as eczema, too much caution cannot be exercised. How our author cured thousands of cases, as he states, without any unpleasant result, is to us very hard to comprehend. We are sorry too to observe that he sets down to the ignorance of others the difficulty of curing the disease, which, in his hands, of course, was effected at once. This does not seem to us right, and should there be another edition of this work, we suggest its being left out. In the treatment we could have wished the author to have entered farther into details. In a work devoted to one specific disease it would not be too much to have expected this. As an example, we would take iron, which, though mentioned by our author, we consider ought to have been spoken of at much greater length. Unless we are greatly mistaken, this drug is capable of effecting much, not only in the acute, but chronic forms of eczema, and this when used even by itself. Like any other drug, it does not always agree, and cannot be given; but we believe it will agree with the great majority. Experience, however, is required of the dose, special preparation, and mode of administration; and we could have desired that our author had entered into much more detail than he has done. We observe he speaks very favourably of the combination of cod-liver oil with iron, and no doubt it is very effective; but in our experience it is only suited to the young. When the disease occurs in middle life, and more particularly if it be mixed up with gout, the oil and iron mixture does not suit at all. Indeed, this form of eczema, which might be called the gouty, appears to us a much more serious disease than when eczema occurs in earlier life. It is very difficult to make the cure complete, and if done hastily, it is almost sure to be followed by serious results, to which we have already alluded. This phase of the disease has not been taken up specially by our author, and yet, we repeat, it is by much the most severe form of the affection. It can be cured temporarily, but it will recur again and again, and, with our present experience, we doubt whether its complete and permanent eradication be possible.

Our author alludes to the varied forms of eczema, according to the parts of the body affected; but these do not call for any special notice. On the whole, we think more might have been made of the subject, particularly as regards details; in other words, while this work, taken as a whole, may be pronounced a good one, it has not by any means exhausted the subject.

## Correspondence.

### THE COLLEGE OF PHYSICIANS OF IRELAND.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—In your issue of last week you comment adversely on the provisions of the Supplemental Charter sought for by the College of Physicians, founding your observation on "The Dissent" put forward by five of the Fellows.

Anyone reading "The Dissent," or your comments, would suppose that the College sought strange and unprecedented powers, as there is nothing to lead him to suppose that the

(a) "A Practical Treatise on Eczema, including its Lichenous and Impetiginous Forms." By Dr. McCall Anderson, Professor of Clinical Medicine in the University of Glasgow; Physician to the Royal Infirmary, to the Dispensary for Skin Diseases, and to the Cutaneous Wards of the Western Infirmary, &c., Glasgow. Third Edition, with Illustrations. London: J. and A. Churchill, 11 New Burlington Street. 1874. Pp. 208.

College merely sought the same powers and rights as are enjoyed by the sister Colleges of London and Edinburgh, in which, moreover, not only is the ballot the means employed in electing Fellows, but in which corporations there exists a small governing body—namely, the Council, which is elected also by ballot. If the right to elect by ballot be not restored to the College, the Fellowship will become a mere purchasable honour, which should be the reward of professional merit. As to the Membership, the College only moved in the matter in the interests of its Licentiates, many of whom from time to time settle in England and Scotland, and are debarred from holding numerous valuable appointments, which are tenable only by Members or Fellows of a College of Physicians; and as the Colleges of Edinburgh and London have a grade of members, it is most unjust that the Irish College should not have the power of placing its Licentiates on a similar footing. That existing Licentiates can receive no injury is evident from a perusal of the enclosed document, which shows that it is intended to preserve in every way their rights. This document, too, is interesting, for it shows that three of the gentlemen who now "dissent" from the proposal—namely, Dr. Haughton, Dr. Cruise, and Dr. Lyons, were members of the committee who, having "carefully considered the whole subject," recommended the College to institute an order of Membership. As nothing has since occurred to alter the case, it is evident that their present "dissent" must be based on other grounds than a desire to advocate the cause of the Licentiates who are not assailed.

I am your obedient servant,

A FELLOW OF THE COLLEGE OF PHYSICIANS.

*Report of the Committee appointed December 6th, 1867, to consider the propriety of instituting an Order of Membership in the College, and, if approved of, the mode of carrying it out.*

Your Committee have to report, after careful consideration of the whole subject, that they are of opinion that it is desirable—

1st. That a new order be instituted in the College, to be called "Members," who shall be admitted (as in the London College of Physicians) either by examination or by election out of the Licentiates.

2nd. That all persons who have been admitted Licentiates of the College before the day of shall be entitled to be admitted members of the College, provided that they have, since their admission as Licentiates, obeyed the bye-laws, and do accept such membership, and engage henceforth to obey the bye-laws of the College.

3rd. That no Member of the College shall compound or dispense medicines for sale.

That with respect to Licentiates, it is desirable—

1st. That the following paragraph in Chap. VI. of the Bye-laws be repealed:

"If the applicant be a member of an Apothecaries' Company, he must surrender his certificate as such, previously to examination; and, if admitted, must not be registered as an apothecary in any part of the United Kingdom."

2nd. That the following words be inserted in the declaration taken by Licentiates, after the word College in line 29, page 17, Chap. VI. of Bye-laws—"keep open shop for the sale of medicines," omitting the concluding words of the paragraph, which will then run as follows:—

"I hereby authorise the President and Fellows of the King and Queen's College of Physicians in Ireland to erase my name from the list of licentiates; and I consent to surrender the diploma received from the College, if I shall (after having obtained the licence of said College) keep open shop for the sale of medicines."

Signed,

FLEETWOOD CHURCHILL, President.

THOMAS E. BEATTY.

SAMUEL GORDON, V.P.

WILLIAM MOORE.

R. D. LYONS.

H. HEAD.

WILLIAM STOKES.

J. T. BANKS.

F. R. CRUISE.

H. KENNEDY.

SAMUEL HAUGHTON, Clk.

31st December, 1867.

## Medical News.

Royal College of Physicians of London.—Monday, December 21, 1874.

Admitted member:—

Henry Folkard, 18 Blenheim Crescent, W.

The following Candidates for the College Licence having conformed to the bye-laws and regulations, and passed the required examinations, were admitted Licentiates:—

George Andrew, St. Bartholomew's Hospital, E.C.

Samuel Benton, Waking, Southend.

Reginald E. Wormald Brewer, Newport, Mons.

Henry Clarke, Guy's Hospital, S.E.

Henry Radcliffe Crocker, University Hospital, W.C.

Charles Henry Day, 12 Doughty Street, W.C.

Gerald Samuel Harper, 121 Warwick Street, S.W.

George W. Homan, King's College Hospital, W.C.

Thomas George Lawrence, 3 Rutland Street, N.W.

Robert Samuel Mutch, 38 Gower Street, W.C.

Charles Newman, 1 Pennywell Road, Bristol.

John Billingsley Richardson, 13 Portsea Place, W.

George Hamilton Ross, 11 Hart Street, W.C.

Henry Hammond Smith, 23 Craven Street, W.C.

Herbert Neale Smith, Richmond Villa, Brighton.

Edmund Johnson Spitta, Clapham Common, S.W.

Joseph B. Talbot, County Asylum, Shrewsbury.

John William Taylor, Charing Cross Hospital, W.C.

Herbert Henry Thomas, 26 Rutland Street, N.W.

Peter James Thomson, 52 Harrington Street, N.W.

The following candidates having passed in Medicine and Midwifery, will receive the College Licence on obtaining a qualification in Surgery recognised by this College:—

Roger Edwards, University Hospital, W.C.

William Murrell, 12 York Street, St. James' Square, S.W.

## NOTICES TO CORRESPONDENTS.

UNITED STATES COMMISSIONER IN LUNACY.—We are gratified to announce that our American correspondent, Dr. Nathan Allen, of Lowell, to whom our readers are indebted for much valuable matter from the other side of the Atlantic, has been appointed State Commissioner in Lunacy by the Government of the United States. We heartily congratulate our correspondent.

Dr. J. B. will find the subject of his letter treated in another column.

Dr. D. S.—We cannot explain the fact.

M. LE DOCTEUR CHARLES MAURIAC, Paris.—Be pleased to accept our best thanks for your brochure "On Psoriasis of the Tongue." The work shall have the review which its very high merits as a contribution to exact observation so fully entitles it to.

Dr. ABBOTT CARLETON, Boston, U.S.—Thanks for the communication. We should be glad to hear some account of ophthalmic medicine in Boston at your leisure. There is now a ladies' college for medicine in London where the pupils dissect and learn anatomy and physiology. Mr. Critchett is to lecture. There is no diploma in England yet open to women, but some English ladies are studying at Paris, and intend, we hear, dissecting in London. Two ladies, N. Kingsford and A. Vickery, the latter having already passed the examination as chemist and druggist at the Pharmaceutical Society of Great Britain, have, in November last, passed their *premier examen de fin d'année* at Paris. There is a strong opinion as yet to women practising medicine in England, but Mr. S. Anderson is said to do a great deal of "business."

Dr. W. SMITH.—Yes, the mortality in France is now very low, probably lower than in any large country in Europe. There is an equality in the number of males and females of a marriageable age in France, and emigration has not, as with us, run off with such an unfair number of marriageable men. The *Saturday Review*, about a month back, had a very favourable notice of the present economical position of France, which, according to the writer in the *Review*, had been predicted by the disciples of Stuart Mill.

R. I.—Prof. Gladstone will deliver lectures next week, on Thursday and Saturday, at the Royal Institution, "On the Voltaic Battery, Electrical Decomposition, &c." These lectures commence at 3 p.m.

A STRANGE FREAK OF NATURE.—In the case of Downing v. Ramsden, heard in the Court of Queen's Bench last week, wherein the plaintiff, a medical man, resident at New Cross, sought to recover a sum of money for maintenance and medical attendance on the wife of defendant, one of the witnesses deposed, according to the published reports in the daily papers, as follows: "In October I was living with my brother-in-law in Dunning's Alley, Bishopsgate. Mr. Ramsden came there in a cab, and was confined with twins." Whether this extraordinary piece of evidence had any effect upon the minds of the jury we know not, but the verdict reversed a previous decision, and was this time in favour of plaintiff. We hope Mr. Ramsden is well over his confinement, and able to bear with his legal defeat.

MEDICAL DIARIES FOR 1875.—In a previous number we noticed the re-issue of "Smith's Visiting List for 1875." We have now before us one or two specimens of Letts' well-known diaries, which are, in fact, too well known to need comment at our hands. Every member of the profession must perforce use a diary of some kind, and whether he use "Letts' Medical Diary" or "Smith's Visiting List," it is a matter of usage and taste. Each is excellent in its own special sphere; and we are enabled to state, from personal examination, that the latest edition of Messrs. Letts' Diaries are fully equal to their past standard of excellence.

## HOSPITAL SATURDAY.

To the Editor of the MEDICAL PRESS AND CIRCULAR.

SIR,—In the very brief space which I fear is all you can allot me, I find it quite impossible to give even a moiety of the answer to your challenge which I should like; but pass on at once to the last two paragraphs of the remarks appended to the letter you honoured me by inserting in the MEDICAL PRESS of Dec. 9th. As you have challenged an instance of any benevolent office instituted and carried out by working men and their leaders, permit me to mention the various temperance organisations, institutions essentially benevolent, in the highest meaning of that phrase, inasmuch as the workers do their utmost to benefit their fellows without any hope of reward other than the good of those they work for. I should like to have written more at large, but your space is so limited, and always so well filled with subjects more pertinent, perhaps, to the MEDICAL PRESS, that I reluctantly abstain from quoting statistics (in my possession) to prove my assertions, merely pointing out that the Good Templars have spent in rent of their meeting-places alone over £20,000; and the only object in their minds is "benevolence." With regard to the "handsome competence" in the possession of "skilled London artisans," when I state the usual wages amount to 38s. per week—not reckoning the unskilled artisans—for "standing wages;" that the vast majority do not average 30s. per week; that an enormous number work away from their homes, necessitating increased outlay, as well as paying to charities, provident societies, &c., &c., from which they get a "contingent advantage;" and that the expenses of bringing up a family are to be considered in the estimate, the "handsome competence" becomes much diminished, and can only be "notorious" to those who are not compelled to meet all these expenses from the "handsome" sum of 30s. per week. I should be greatly obliged if you could at a future time grant me space to offer a few remarks on the other matters touched on in your leading article, as I have a great desire to vindicate the artisans, "skilled" and others, from being prejudiced in the minds of your readers; and as the animadversions appeared in such a high-class journal as the MEDICAL PRESS, I thought it essential the answer should have a chance of being circulated in the same direction in order to effect that which I ardently desire—the removal of, as I think, a mistaken idea.

I am, Sir, yours faithfully,  
H. F. G.

Poland Street, W.

## "FREE PHOSPHORUS IN MEDICINE."

To the Editor of the MEDICAL PRESS AND CIRCULAR.

SIR,—Will you permit me briefly to correct a little misapprehension of my views which I observe in your notice of the above work, and for which I am myself answerable? Your reviewer supposes that I do not regard finely divided phosphorus as a safe form in which to administer that remedy. That is not my view; on the contrary, I say at page 104, "That the pills of reduced phosphorus already described afford an efficient, convenient, and agreeable means of exhibiting free phosphorus," &c. The terms which I have chosen to distinguish between a mass of phosphorus and pulverised phosphorus—viz., "solid" and "reduced" respectively, have, no doubt, conduced to some obscurity, since the latter term does not express any essential difference. I believe you will consider this point worth noting.

I am, &amp;c.,

J. ASHBURTON THOMPSON.

COMMUNICATIONS, Enclosures, &c., have been received from—Mr. Erichsen, London. Mr. D'Orsey, London. Prof. Christison, University of Edinburgh. Mr. Ireson, Leeds. Dr. Mitchell, London. Mr. Thos. Cooke, London. Dr. Davys, Swords. Dr. Routh, London. Mr. Henderson, Great Malvern. Mr. Blacker, Midsemer. Mr. Gale, Bath. Mr. Alfred Hasliland, Northampton. Dr. Elliot, Carlisle. Mr. Allingham, London. Dr. Bartley, Weston-super-Mare. Dr. Cousins, Newport. Dr. Hime, Sheffield. Mr. Jebb, Metropolitan Asylums Board. Dr. Campbell Black, Glasgow. Mr. Tilley, London. Mr. Hyslop, Stretton. Dr. Charles, Belfast. Dr. J. Stewart, Greenock. Mr. King, London. Dr. Bellis, Woolton. Dr. Lebeau, Paris. Dr. Adamson, Bellaghy. Mr. E. F. Bean, Paignton. Dr. Boyd Mushet, Birkenhead. Dr. Oscar Woods, Warwick County Lunatic Asylum. Mr. Miller, Benthams. Mr. Air, Kennington. Dr. Pearce, London. The Secretary Obstetrical Society of London. Dr. Madras, Dripsey. Dr. McMahon, Toomavara. Dr. Rorke, Sutton. Dr. Winslow, Scrabbly. Dr. Irvine, Irvinestown. The Bursar, Queen's College, Belfast. Mr. John Conn, Newtownlimavady. The Clerk of Union, Ballyshannon. Dr. Lyon, Willenhall. Dr. O'Reilly, Nobber. The Clerk of Union, Mohill. Dr. Evans, Dublin. Mr. Brennan, Royal College of Surgeons, Ireland. Dr. James, Kensington. Dr. Griffiths, Dublin. Dr. Fryer, Fenagh. Dr. Harrison, Kilmrough. Dr. Gray, Armagh. Mr. T. Lambert, Mercer's Hospital. Dr. Ringland, Lisbane. Dr. Jennings, Cork. Dr. Muter, London. Dr. Dudley, Kinnetty. Dr. Murdoch, Maghera-felt. Dr. Bates, Cowbridge. Glamorgan. Dr. Harvey, Cork. Rev. Dr. Haughton, Dublin. Dr. Robinson, Dublin. The Registrar, Queen's College, Cork. The Registrar, Catholic University. Mr. John Orr, Biehill. The Clerk of Stranorlar Union. The Clerk of Letterkenny Union. Mr. W. D. Wadsworth, Kingstown.

## VACANCIES.

Royal College of Surgeons of Ireland. Professorship of Midwifery. (See Advt.)  
Letterkenny Dispensary. Medical Officer. Applicants must address the Hon. Sec. (See Advt.)  
Newcastle-on-Tyne Lunatic Asylum. Assistant Medical Officer. Salary, £100 per annum, with board and apartments. Forms of application to be obtained from the Superintendent.  
Sheffield Public Hospital. House Surgeon. Salary, £100, with board and residence. Address, Dr. Hall, at the Hospital.  
Western Dispensary, Westminster. Resident Medical Officer. Salary, £105, with furnished rooms. Address the Secretary, 1 Artillery Row, London, S.W.  
Evelina Hospital for Sick Children, Southwark. Physician. Honorary. Also a Medical Registrar. Salary, £20 per annum.  
Dundee Royal Infirmary. Resident Medical Assistant. Salary, £29, with board, &c. Address the Secretary.

Essex Lunatic Asylum. Second Assistant Medical Officer. Salary, £100, with board. Applications to Dr. Campbell, at the Asylum, Brentwood.  
University of Edinburgh. Examiner in Medicine. Full particulars of the Secretary.  
Great Northern Hospital, Caledonian Road. N. Physician. Honorary. Surgeon. Honorary. Applications to be addressed to the Secretary.  
Parish of St. Pancras, London. Medical Officer of District No. 8. Salary, £180 per annum. Applications, accompanied by testimonials, to be addressed to the Vestry Clerk, at the Vestry Hall.

## APPOINTMENTS.

BLAKER, E. S., L.R.C.P. Ed., M.R.C.S.E., Acting Medical Officer to the Worcester Dispensary and Provident Medical Institution.  
BREXERTON, W. W., L.K.Q.C.P.L., Superintendent Medical Officer of Health, and Sanitary Officer for the Oughtersland Rural Sanitary District.  
BROWN, G., M.R.C.S., L.S.A., Surgeon to the Islington and North-London Provident Dispensary.  
CRACKLE, T. A., M.R.C.S.E., Medical Officer and Public Vaccinator for the No. 8, or Ilkerton District of the Bassetford Union.  
DUNLOP, W. M., M.B., C.M., Medical Officer for the Wilford District of the Woodbridge Union.  
HARVEY, A., L.A.H. Dub., Apothecary to the Rathmines Dispensary, South Dublin Union.  
LEE, F. F., M.B., Physician to the General Infirmary, Salisbury.  
LYDDON, J. H., L.R.C.S.I., Surgeon to the Norwich Friendly Societies' Medical Institute.  
MACARTHUR, P., M.B., L.R.C.S. Ed., Medical Officer, &c., for the Grey Abbey Dispensary District of the Newtownards Union.  
MAPOTHER, E. D., M.D., Consulting Sanitary Officer for the Killmainham New Urban Sanitary District.  
MCDOWELL, FRANCIS VICTOR, L.R.C.S.I., Sanitary Officer for Ballinamoyler and Newtown, Queen's County, and Consulting Sanitary Officer for Carlow Urban District.  
PIERCE, G. F., L.R.C.P. Ed., L.R.C.S. Ed., Attending Physician to the Ulster Hospital for Children, Belfast.  
ROBERTS, J., M.D., M.R.C.P.L., Consulting Physician to the General Infirmary, Salisbury, on resigning as Physician.  
STRELL, G., M.B., C.M., Medical Registrar to the London Fever Hospital.  
STURGE, W. A., M.B., M.R.C.S.E., Medical Registrar to the National Hospital for the Paralysed and Epileptic.  
WALL, J., M.D., Superintendent Medical Officer of Health for the Cork Urban Sanitary District.

## Deaths.

BAXTER.—On the 5th Dec., W. Dacier Baxter, M.R.C.S.E., of Cheltenham, aged 80.  
BEAN.—On the 11th Dec., Dr. R. J. Bean, of Lodge Street, Leeds, aged 49.  
BOYD.—On the 14th Dec., at 2 North Crescent, Bedford Square, London, Sir William Boyd, Knt., A.M., M.D., in the 72nd year of his age.  
EATON.—On the 7th Nov., at Ballinasloe, co. Galway, of inflammation of the lungs, Richard Eaton, M.D., for fifteen years Medical Superintendent of the Ballinasloe District Lunatic Asylum.  
FLEMING.—On the 18th Dec., at George Street, Hanover Square, London, Hope Stewart Fleming, late of the H.E.I.C. Medical Service.  
GARDNER.—On the 14th Dec., R. Gardner, M.D., of Johnstone, Renfrewshire, aged 83.  
GILCHRIST.—On the 3rd Dec., at Vauxhall Bridge Road, S.W., Wm. Gilchrist, L.R.C.P. Ed., L.S.A., aged 48.  
GRAY.—On the 11th Dec., Jas. St. Clair Gray, M.D., of Belmont terrace, Hillhead, Glasgow, aged 37.  
HANDLEY.—On the 6th Dec., J. Handley, L.S.A.L., of Todmorden.  
HASTINGS.—On the 20th Dec., suddenly, of heart disease, at his residence in Albemarle Street, London, John Hastings, M.D., aged 69.  
HESTER.—On the 8th Dec., Jas. Torry Hester, F.R.C.S.E., of Hastings, formerly of Oxford, aged 74.  
HUDDLESTON.—On the 15th Dec., at Barnstable, J. N. Huddleston, M.D., of Roborough, Devon, formerly of Compton Terrace, Islington, aged 67.  
ROCHE.—On the 9th Dec., at his residence in London, Thomas Roche, M.B.C.S.E., Staff Surgeon R.N., aged 42.  
RUCK.—On the 8th Dec., David Ruck, M.R.C.S.E., of Cirencester, aged 50.  
SMYTH.—On the 10th Dec., at his residence, Manorcunningham, John Smyth, Esq., M.D.  
STEEL.—On the 14th Dec., at Priory Lodge, Cheltenham, James Steel, M.D., late of the H.E.I.C.S.  
THOMPSON.—On the 8th Dec., at Bath, Dr. J. Thompson, half-pay Royal Artillery, aged 87.  
WARD.—On the 4th Dec., at Bombay, A. V. Ward, M.R.C.S.E., Surgeon-Major Indian Army and Presidency Surgeon, aged 54.

## Advertisements.

HOSPITAL SUNDAY, 1875.—NOTICE IS HEREBY GIVEN, that a PUBLIC MEETING will be held on MONDAY, the 4th day of January, 1875, at Half-past Two o'clock, in the Egyptian Hall of the Mansion House, for the purpose of settling the preliminary arrangements for Hospital Sunday, 1875, and of electing the Council, &c., for that year.

All ministers of religion in the metropolis and its neighbourhood, the authorities of the various hospitals and dispensaries, and others interested in the movement, are invited to be present.—By order.

HENRY N. CUSTANCE, Secretary.

**LETTERKENNY DISPENSARY.**—The Committee of the above Dispensary will meet on Tuesday, the 29th inst., for the purpose of electing a properly qualified person to succeed Dr. Geo. E. Carré, who has accepted the appointment of Resident Medical Superintendent of the Castlebar Lunatic Asylum.

The following appointments were held by Dr. Carré—viz.: Physician to the Donegal District Asylum; Medical Officer Letterkenny Fever Hospital; Surgeon to the Donegal Artillery, &c.

Candidates for the Dispensary may forward their Applications and Testimonials to

Lisnennan, Letterkenny  
Dec. 12th 1874.

ROBERT RAMSAY, Hon. Sec.

**ROYAL COLLEGE OF SURGEONS IN IRELAND.**—The President and Council hereby give notice that on Thursday, the 14th day of January, 1875, at the hour of 2 o'clock, they will proceed, according to the provisions of the Supplemental Charter, to elect a Professor of Midwifery in the room of Dr. Sawyer, resigned. Candidates are requested to lodge their applications at the College on or before the 7th of January, 1875.

By order of the Council,

J. STANNUS HUGHES,

Secretary to the Council.

December 4th, 1874.

## MALVERN COLLEGE.

This COLLEGE contains TWO DEPARTMENTS—the CLASSICAL and the MODERN. There is also a Preparatory LOWER SCHOOL.

There are Boarding Houses within the College Grounds, held by the Head Master and others of his Staff; a Gymnasium, &c.

Board and Tuition under 14, £80; over 14, £90. Non-shareholders pay an extra fee of £5. Special advantages for Sons of Clergymen and Home Boarders.

For further information apply to the Rev. ARTHUR FABER, M.A., Head Master, late Fellow and Tutor of New College, Oxford.

## THE STEWART INSTITUTION FOR IMBECILES, AND LUNATIC ASYLUM, LUCAN.

PATRON:—H.R.H THE PRINCE OF WALES.

This Institution was founded in 1839, and has already attained a large measure of success. It is situated in a healthy locality, and is under the superintendence of a Resident Physician, with trained teachers, who endeavour by the most improved methods to develop the powers, mental and physical, of Imbeciles.

To the pupils who can receive such instruction useful trades are taught. In that of mat making, particularly, excellent progress has been made, and an inspection of the work is invited either at the Institution or at the office.

The Institution is the only one of its kind in Ireland, and is mainly supported by voluntary contributions.

Pupils are admitted free by election, or by payment of £35 per annum. A higher rate is payable for separate accommodation.

Contributions to the fund for the erection of the proposed extensive buildings at Palmerston are earnestly solicited.

Each donation of Five Guineas gives the donor a life-vote. Annual Subscribers are entitled to one vote for each half guinea paid.

An Asylum for Lunatic Patients of the middle classes, under a well-organised administration, also forms part of the establishment.

Full particulars as to the working of both Institutions, terms, &c. can be had at the office,

40 MOLESWORTH STREET, DUBLIN.

W. O'NEILL, Secretary.

## DUBLIN INFIRMARY for DISEASES of the EYE and EAR, Ely Place.

Ophthalmic and Aural Surgeon:

ARCHIBALD HAMILTON JACOB, M.D. Dub., F.R.C.S., Ex-Ophthalmic and Aural Surgeon to the City of Dublin Hospital.

Consulting Physician:

EVORY KENNEDY, M.D. (Hon. Caus.) T.C.D. and Edin., Fellow and Ex-President King and Queen's College of Physicians.

Consulting Surgeon:

GEORGE H. PORTER, F.R.C.S.I.; M.Ch. T.C.D. (Hon. Caus.), Surgeon in Ordinary to Her Majesty the Queen in Ireland; Fellow and Ex-President, R.C.S.I.; Senior Surgeon to the Meath Hospital.

Obstetric Physician:

JOHN CRONYN, M.D., F.R.C.S., Examiner in Midwifery, Roy. Col. Surgeons; Ex-Assistant Physician Rotunda Hospital.

Work, Income, and Expenditure for Twelve Months, ending  
June 30, 1873.

Annual number of Dispensary patients ... ..	5,847
Number of visits paid by such patients ... ..	134
Number of patients within the Infirmary ... ..	163
Number of operations performed ... ..	£37 15 0
Total gross expenditure per bed per annum ... ..	1 10 6
Average expenditure per intern patient ... ..	

The Infirmary is wholly dependent on private benefactions, and is in debt to the Medical Officer. SUBSCRIPTIONS ARE EARNESTLY REQUESTED

Established 1848.

## PROFESSIONAL AGENCY AND MEDICAL TRANSFER OFFICE.

50 LINCOLN'S INN FIELDS, W.O.

J. BAXTER LANGLEY, LL.D., M.R.C.S., F.L.S.,

&c. (KING'S COLL.), and Author of VIA MEDICA.

Has always upon his books a large number of desirable Investments and available Appointments for negotiation.

The business of the Professional Agency is based upon the general principle, that no charge is made unless work has been done and services rendered.

No Commission charged to Purchasers.

Full information as to terms, &c., sent free on application.

Office hours, from 11 till 4; Saturdays excepted.

COMPETENT ASSISTANTS provided without expense to principals. No Gentlemen recommended whose antecedents have not been inquired into.

**PRACTICES AND PARTNERSHIPS NOW OPEN** for Negotiation (in addition to those advertised in Dr. Langley's List, which is sent post free on application).

Z 78. First-class LONDON PRESCRIBING PRACTICE, held by the Incumbent for many years. A Partnership introduction would be given, but the connection could not be transferred to any gentleman not highly qualified nor unless he were accustomed to the best society. The income averages about £4,500 a year. Midwifery fees from 7 to 10 guineas. The residence is well situated near the most fashionable west-end squares.

Z 79. In a fashionable watering place, an OLD ESTABLISHED FAMILY PRACTICE, the average receipts from which are between £1,000 and £1,200 a year. Midwifery having been lately declined, there is little obstetric practice, but there is scope for almost unlimited increase, if this department were resumed. The house is large, very convenient, and very near the shore; it contains twenty-three rooms, with detached groom's house, stabling, &c.; it can be purchased or rented. Ill-health and advanced age the cause of retirement. The premium would depend upon the introduction required, but no gentleman need negotiate unless he has at command at least £1,000.

Z 80. In a prosperous and picturesque district, an OLD ESTABLISHED PRACTICE, yielding in actual receipts £1,100 a year. Age the cause of retirement. Appointments bring in £62 a year. The house is well situated, contains 10 rooms, with detached surgery, offices, stabling, and large garden. Rent 40 guineas. The working expenses amount in all to about £300 a year. An effective introduction by quasi partnership or otherwise as long as may be desired. Part of the premium may be paid by instalments. The whole connection is safely transferable to a suitable gentleman, and there is great scope for increase, as there is a population of about 15,000 inhabitants.

Z 76. MIDLAND. Within 70 miles of London, with direct railway communication, in a pleasant town and district, containing about 6,000 inhabitants, a FIRST-CLASS PRACTICE, realising £800 a year. No club or parish work, and the Practice easily conducted, the fees being good. There is a convenient residence, centrally situate, at a moderate rent. The whole connection is believed to be transferable to a gentleman accustomed to good society. No gentleman need apply unless he have at command at least £1,000.

Z 77. PARTNERSHIP in a large and prosperous town within 100 miles of London. A gentleman conducting an increasing practice desires to secure the co-operation of a doubly-qualified partner. Receipts last year were upwards of £1,100, and the present year will show a considerable advance. As there is great scope for increase the Incumbent believes that the receipts could be doubled by efficient co-operation. The expenses of the Practice are moderate, as the patients reside within a short radius. Public appointments produce about £200 a year. The Half Share for transfer. Part of the premium might be left on security if the applicant were suitable.

# The Medical Press & Circular.

"SALUS POPULI SUPREMA LEX."

WEDNESDAY, DECEMBER 30, 1874.

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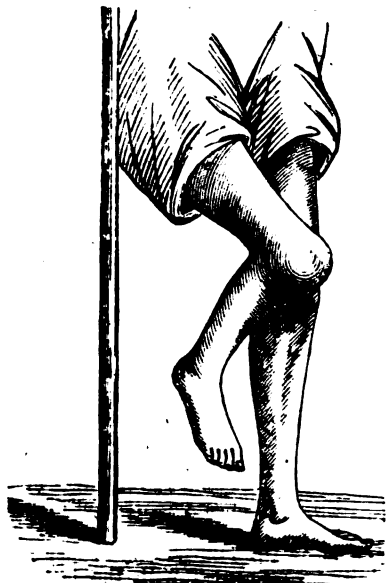
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## Original Communications.

### THE CURE OF BENT KNEE AND THE IMMEDIATE TREATMENT OF CONTRACTED JOINTS.

By J. MORGAN, M.D., F.R.C.S.I.,  
Surgeon to Mercer's Hospital, Professor of Surgical and Descriptive Anatomy to the Royal College of Surgeons, &c.

In my communication of December 2nd I have stated that no definite rule can be laid down as applicable to all cases; thus, where the adhesions are found to be very firm



Case of G. H. Bent knee of 5 years' duration.

and difficult of disruption, it may be judicious to be satisfied with an incomplete extension at any one time, as in the following example:—In February, 1873, a boy, G. H., aged nearly 10 years, came under my care, with the knee bent at a very considerable angle. He had suffered from disease of the joint for several years; it had gradually kyphosed in the position shown below.

There was very little mobility of the joint, and the boy's general health was now good. I found the biceps tendon resisting, and divided it under the influence of ether. I straightened the knee very considerably, notwithstanding a great deal of resistance. In two months the boy went to the country, and I lost sight of him till last month, when he came to me with the knee still somewhat bent; he used a crutch, though the front part of the foot reached to the ground and served in progression.

On November 29th, 1874, I put him under ether, and forcibly extended the joint, without finding it requisite to divide any tendon. I had two lateral stays applied with a cross leather padded strap at the knee; he went to the country last week, walking well, and leaving his crutch here behind him.

In this boy the deformity had been very great, indeed, apparently a hopeless case; he now walks with but a slight limp, and is gaining courage daily in using the limb.

Even a very early age does not preclude the application of this treatment, as in the following instance:—

On September 14, 1874, a child, aged six years, was brought to me to Mercer's Hospital to have its knee straightened; it was miserably neglected. At two years of age it first showed evidences of knee disease. It had thus spent four years of its life getting along as best it could, without being able to put the foot to the ground. The joint was bent, as shown in the tracing, at a considerable angle. It was capable of flexion, but not of extension. The outer hamstring was found resisting.

I put her under the influence of ether, and divided the hamstring with the tenotome, and, by extension in the manner directed, I reduced the limb at once to the straight position, and put on a support. The child left hospital on September 22, 1874. She is now able to walk,

and is improving in health, notwithstanding the adverse circumstances of an uncomfortable home.



In another instance, where there was the complication of a talipes of the same foot, the result of extension of the contracted knee was equally satisfactory.

F. H., a girl, aged 8 years, about Christmas 1869, had fallen on a fender, and hurt the knee, which subsequently became swollen and tender. She suffered a good deal of pain in the joint, and was confined to bed for several months. In April, 1870, an abscess formed in the calf of the leg, through which a drainage tube was passed. After many months she partially recovered with a contracted joint. In September, 1872, a piece of bone was removed from the front of the tibia, the child was kept in bed, and an attempt was made to straighten the knee by the application of weights and an instrument. This treatment was used for six months. An abscess formed then under the knee, and it presented the contracted appearance shown in the drawing, taken from a photograph.



Case of F. H., with contracted knee. Nov. 23, 1874.

Though the complication of the contracted tendon of the heel, owing to the destruction of the calf muscles by the original abscess, was an unpleasant one, I anticipated in this case a successful result as to the joint; there was a certain amount of mobility left, and the hamstring tendons seemed to be considerably implicated as a cause of the deformity. On November 25th, 1874, I put her under etherisation, and divided the biceps tendon, which I found

offending. I then extended the limb per force, using equable pressure around, and behind more particularly, and felt very distinctly the adhesions give way according as I straightened the joint. The limb was laid on an angular splint, which was subsequently straightened. This little patient suffered comparatively nothing, and in less than a fortnight was walking about bravely with the protection of lateral rods, and an ankle strap to help in the correction of the contracted ankle. The straightness of the limb, and the ability to support herself erect, and independently of any crutch, is shown in the drawing, taken from a photograph procured on December 3rd, 1874.



Both these instances are interesting, as occurring in children of a tender age, whose general health would be much endangered by the confinement and inconvenience caused by malposition of such a limb.

(To be continued.)

## CHOLERA: ITS ÆTIOLOGY, CONTAGIOUSNESS, AND TREATMENT.

By WM. BOYD MUSHET, M.B. Lond., M.R.C.P.,  
Late Physician to the North London Hospital for Consumption, formerly  
Resident Physician at St. Marylebone Infirmary.

### ÆTIOLOGY.

(Continued from page 549.)

The cramps, which are very variable in intensity in cholera, are due, says Dr. Johnson, to the irritant action of morbid blood, which excites spasm of the muscles; but I regard them to depend on insufficiently nourished nervous and muscular filaments, which differ much in irritability, according to the neurotic predisposition of the patient. Cramps were not so frequent or intense at the latter part as at the commencement of the epidemic of 1854. The presence of a poison in the blood in cholera, upheld by Dr. Johnson and other authors, can with difficulty be reconciled with the fact of a patient cold and pulseless, in a state of collapse, becoming, without further evacuation upwards or downwards, in a few



minutes, warm, naturally coloured, and rapidly convalescent, as I have witnessed, after a dose or two of sulphuric acid.

That saline injections act by relieving spasm of the vessels, as Dr. Johnson asserts, I believe to be altogether an error. He may as well call all passive congestion minute arterial spasm. Injections in cholera cause dilution and liquefaction of the inspissated blood, and, if hot, temporarily restore the circulation and animal heat, which last is radically interfered with by suppression of the organic operations; but their good effects are transitory, and cease as the temperature declines, as injections, says Dr. Parkes, never saved a case.

In reaction, Dr. Johnson holds that the drowsiness results from carbonic acid in the blood; but it is more probably due to reformation of effete materials not excreted, as urea, &c. It is, in fact, uræmic, not asphyxial.

To sum up, I regard cholera to be a malignant form of diarrhœa, essentially identical in its nature, arising from a local trophic perversion of the alimentary canal, in consequence of the introduction of putrescent animal particles into its interior (occasionally through the lungs?), which, under some inscrutable influence or epidemic constitution, destroy the balance of the capillary circulation of the stomach and intestines, causing exhalation from their surface, attended by characteristic symptoms, one of the most marked and constant being, in the stage of collapse, suppression of urine. The general symptoms of cholera are almost or complete pulselessness, haggard visage, eyes sunken, with striking areolæ, features pinched, lips livid, voice whispering, surface more or less mahogany blue in tint, and cool, extremities cold, nails purplish or black, skin corrugated, tongue variable (may be clean), cramps in legs and abdomen (may be absent), great distress and restlessness (variable), great thirst, gruelly or rice-water evacuations, vomiting as if the whole stomach was abruptly emptied without effort, succeeded by retching, frequent moaning, and suppression of urine. In rare cases the dejecta are bilious throughout in the fatal form of the disease, but anuria is constant, and it is evident that the diminution of the renal secretion is directly proportionate to the severity of the collapse, that is, to the completeness of the arrest of nutrition and of the organic functions. No urea is formed, and no urine is secreted, as the kidneys lack their accustomed stimulus. When consecutive fever supervenes, with restored tissue metamorphosis, there is difficulty of varying grade in re-establishing the renal function, and the urine is always albuminous. Hence there is a disposition to uræmia; in collapse, anuria; in reaction, ischuria.

The consecutive fever, however, is frequently out of proportion to the intensity of the antecedent collapse. It is at times severe, even after choleraic diarrhœa. I believe the consecutive symptoms depend much on their severity whether the stage of reaction has been of gradual or sudden invasion, on the mode of treatment adopted, and also on the previous condition of the kidneys, though other influences may contribute. Although the mammary secretion is not arrested in malignant cases, as Dr. Johnson has pointed out, *it is rendered serous*. I noticed this in a severe, but not one of the severest cases.

Do children under two years ever exhibit the characteristic (cyanotic) symptoms of cholera? I have observed several cases of diarrhœa of unusual severity in infants which proved fatal during the epidemic, whose mothers had died from the disease, but the type did not justify the appellation of malignant cholera. I may add that the disease did not spread from these to other children in the nursery.

Dr. Ayre held that cramps were also invariably absent from children, and certainly, according to my own observations, they do not present the characteristic symptoms remarked in adults.

#### Contagiousness.

With regard to the contagiousness of cholera, there is a remarkable diversity of opinions. It is, of course, exceed-

ingly difficult to prove a negative, that is, that it is *not* contagious. On the other hand, it is almost as easy to conclude affirmatively, when an outbreak occurs, and a large number of the population is attacked within a limited area, often on most insufficient grounds, as in the case of the Broad Street pump, the water from which almost simultaneously affected several hundred persons. It is also significant that those who are most conversant with the disease in England are either non-contagionists or regard it to be but mildly contagious, whilst those who have had little or no experience of cholera are firmly persuaded of its contagiousness, as were for the most part our predecessors, when panic-stricken by its appearance at Sunderland in 1831. Thus, in 1832, the College of Physicians affirmed the disease to be contagious, whilst the Committee for Scientific Inquiries in 1854 were undecided on the point. It may also be noticed that the views of authors as to contagion are often influenced by their special theories concerning the disease. Amongst old Indian medical officers, Annesley and Jameson were non-contagionists, whilst Orton was inclined to contrary views. Dr. Roupell believed cholera to be contagious, but he admitted that it may have had more than one source, and appeared in many places independently of transmission or contagion. He owned that "military cordons, and most rigorous continental enactments have proved inefficient in preventing the spread of the disease from infected to uninfected countries," which is an argument rather against its propagation by contagion.

Dr. Parkes, on the contrary, from his observations in India, does not consider the disease contagious. "He has never observed any indication of contagion." He says that communication with infected persons or districts did not cause the disease. He has inoculated himself accidentally in post-mortem examinations and never suffered; nor did the hospital attendants or medical officers. He does not, however, wish to generalise his observation and to conclude that the poison of cholera is never reproduced in the human body; but he has never witnessed any facts which led him to believe that the poison of cholera possessed the power of multiplying itself by its action on the living human system.

Dr. Copeland believed pestilential cholera to be a specific disease, distinct from the severe forms of common cholera. He deemed it infectious, and essentially independent of epidemic influence, or of any particular state of the atmosphere, although it may be intensified thereby.

Sir Thomas Watson, Dr. Bryson, and Dr. Geo. Johnson all appear to be contagionists, that is, hold that cholera is a portable poison, capable of conveyance from place to place and of communication from person to person; and Dr. Bryson asserts that "its spontaneous origin far away from an infected locality is unknown in the naval service."

(To be continued.)

## FRACTURE OF SKULL FOLLOWED BY HERNIA CEREBRI.

By JOHN G. ADAMSON, A.M., M.D.

On the evening of Sunday, Aug. 23rd, Samuel B., a young man about 19 years of age, but unusually tall and muscular, came to my house to have a wound on his head dressed. He had been fighting, when his opponent struck him a severe blow on the head, apparently with some weapon, which felled him to the ground, but he immediately arose and resumed the quarrel for a few minutes. He then got into a cart and went about half a mile. So little did he think of the wound that it was only when urged by a friend he consented to come to me to have it dressed. On examination I found a scalp wound about two inches in length, over about the middle of the left parietal bone, leading down to a depressed fracture of the skull. Finding a number of loose frag-

ments of bone, I removed them—nine in all—but as the patient suffered no pain I did not consider chloroform necessary. A gap in the skull was left, somewhat circular, about one inch in diameter, and at the bottom were seen portions of brain substance which had escaped through lacerations of the membranes. During the whole examination and removal of bone the patient was perfectly conscious, and constantly expressed himself as absolutely free from pain. For a moment or two he became somewhat faint, but soon recovered. I applied simple water-dressing, had the patient removed to a friend's house a short distance in the country, and ordered for him a saline aperient.

Aug. 24th.—Found him quite conscious and free from pain; had had a good night and slept well; bowels freely moved. Ordered for him tinct. ferr. mur., with the idea—as suggested to me by my late teacher, Dr. Gordon, of Belfast—of its acting as a sort of prophylactic against erysipelas.

Aug. 27th.—A little pus appeared in the wound, with slight fœtor; general health and appetite good; complained of no pain; continued tinct. ferr. mur., and ordered carbolio lotion to be applied to the wound.

Sept. 3rd.—Till this time case had progressed without a single bad symptom; pulse and temperature normal; wound had closed in considerably, and appeared healthy.

Sept. 5th.—To-day I found patient in a semi-comatose condition; could with difficulty be roused to consciousness; I examined the edges of the wound in skull, and found a spiculum of bone projecting into the brain; shortly after the removal of this, perfect consciousness returned.

Sept. 16th.—Nothing worthy of note since 5th; he was somewhat weaker, and stomach rejected all food almost as soon as taken.

Sept. 22nd.—Wound in scalp had almost closed, but seemed rather fuller than formerly. Fearing hernia, I applied a pad, which did not give any annoyance. Appetite still fair, but irritability of stomach continued.

Sept. 26th.—Patient weaker, and vomiting persistent; total paralysis of right side, but consciousness remained perfect, and he answered rationally when addressed. Hernia was increasing, and I found it impossible to re-apply the pad tightly, in consequence of the extreme nervous irritation occasioned thereby. There had been several pretty severe attacks of hæmorrhage from it during the past few days.

Sept. 28th.—Hernia so large that I deemed it advisable to remove the protrusion, which I did by shaving it off level with the scalp, and re-applied the pad, which now seemed to be borne somewhat better. Patient much emaciated, and very weak.

Oct. 3rd.—He seemed to be sinking gradually; though he appeared to understand all that was said, he had not the power of replying except by signs. On several occasions I was told he had attacks of violent delirium; indeed, so unmanageable had he been that one of his friends suggested to me in all sincerity the propriety of administering a dose to put an end to his sufferings with his life. When seen by me, however, he was very quiet, and remained so till his death. He lay in a semi-comatose condition, but could be easily aroused.

Oct. 8th.—Hernia had entirely disappeared, and instead there seemed to be a considerable loss of brain substance. He was unconscious, fœces and urine being passed involuntarily.

Oct. 11th.—He died to-day, at 4 o'clock.

Oct. 12th.—Made a post-mortem. Found slight congestion on surface of right hemisphere of brain, and on left side found a cavity in brain, somewhat conical in form, the base about two inches in diameter, corresponding to the seat of injury in the skull. On removing the brain a quantity of pus escaped, which came from an abscess in the left anterior lobe, which had almost entirely destroyed the third convolution and injured the others to some extent also.

Remarks.—The first point of note in this case was the

amount of injury inflicted on the brain and its membranes without the patient being aware of it or experiencing any pain, and the entire absence of pain even during the removal of the fragments of bone.

2. The long time which elapsed from the receipt of the injury till death ensued. This I am inclined to attribute to the strength and vitality of the patient.

3. The loss of the power of speech, together with the existence of an abscess in the situation described, seems to give some support to the theory advanced by M. Broca, that the seat of the faculty of articulate language is in the posterior part of the third frontal convolution of the left lobe of the brain. From a case, however, in which the brain had sustained such extensive injuries, it would be impossible to arrive at any definite conclusion, though the coincidence is worth mentioning.

## CLINICAL MEMORANDA.

Reported by JOHN W. MARTIN, M.D.,

Assistant-Surgeon Mayfield Factory Dispensary, Portlaw, &c., &c.

### *Case of Retained Placenta—Hour-glass Contraction of the Uterus.*

On the 24th of October, 1874, I was asked to see the patient, M. K., by the midwife in attendance, the placenta being retained. The nurse stated that the labour had lasted forty-eight hours, that the case had been one of breech presentation, and that the child had died immediately after birth. (I strongly suspect myself that the child was still-born.) I saw her about an hour after the birth had taken place; during the interval she had lost a great deal of blood, and was very low and weak.

After a fair trial of pressure, cold applications to the surface of the abdomen, gentle traction upon the cord, &c., without the slightest effect, I introduced my hand into the uterus, and brought the placenta away.

The case was one of well-marked hour-glass contraction, the constriction being high up in the middle zone of the uterus; by it the after-birth was tightly grasped, and impossible of removal save by the introduction of the hand. After removal of the placenta, there was good contraction, and the case did well. It may be as well to remark that the woman had married rather late in life, to which circumstance in part may be due the prolonged labour.

## Hospital Reports.

### METROPOLITAN FREE HOSPITAL.

(Under the care of Dr. CHARLES R. DRYSDALE.)

JAMES GERRARD, set. 47, came to the Metropolitan Hospital on the 13th of November, 1874. For the last six months this patient has noticed a sore at the right commissure of the mouth, which he attributes to having put in his mouth a pipe in a public-house. The mouth did not get sore for a month after the pipe was used, and has been so since. The sore has been hard all along for the last six months, but there has been no lump beneath the jaw. At present, there is a very slight loss of substance, caused by an ulceration occupying the right commissure of the mouth, and both on the upper and lower lip there is a red swelling visible, both of which are slightly oedematous. No enlarged glands. The diagnosis in this case seeming to lie between cancer and syphilis, Dr. Drysdale prescribed three grains of blue-pill with two of extract of hyoscyamus twice daily, and awaited events. The man never returned. It is probable that this was a case of syphilitic infection by a dirty pipe.

CASE 2.—CATHERINE MARTIN, set. 37, came to the Metropolitan Free Hospital on the 14th of April, 1874,

bringing with her an infant aged seven weeks, suffering from a dry eruption on the face, buttocks, feet, legs, and back of neck, where it is profuse. The child snuffled a good deal, so that it could hardly suckle, especially at night. This eruption appeared when the child was five weeks old, first on the buttocks.

The mother has been married three years. Her husband is a labourer. She has one little boy a year and eight months old, quite healthy. Husband was in St. Bartholomew's Hospital twelve months ago with asthma. He is reported not to have any eruption. Mother says she was well whilst pregnant with this infant. Dr. Wathi prescribed hyd. c. cret., gr.  $\frac{1}{2}$ , bis. d.

On April 21st, a few little vesicles were seen on mother's left breast. Child is said to be a little better since taking this powder. The next entry, on the 27th of April, mentions the death of the child.

*Remarks.*—Hereditary infantile syphilis is a very fatal disease under all treatments. It is a pity that so many able men have written so incautiously as to make it seem as if it were very easily cured by small doses of mercury. Such is not the case, and the great majority we think of syphilitic infants die.

### CASE 3.—*The White Patchy Tongue.*

MARY WELLAND, æt. 40, married. Has usually had good health until latterly, but has never complained of her tongue. Came to the Metropolitan Free Hospital in November, 1874, for bronchitis. There is a large central strip of whitish appearance, as if the tongue had been painted over with a weak solution of nitrate of silver, one inch in breadth, extending from the circumvallate papillæ to half an inch from the top of the tongue. The patient feels no inconvenience from this condition of tongue. She never has suffered from skin eruptions, nor is there any special history leading to the suspicion of syphilis.

### CASE 4.—*An Excessive Beer-Drinker.*

IN October, 1874, a man, æt. 50, a coal-whipper on the Thames, attended the hospital affected with phthisis pulmonalis, which seemed to have been caused by immoderate drinking. The patient asserted positively that for a week at a time he had occasionally drank six or seven gallons of beer daily.

## Transactions of Societies.

### THE SURGICAL SOCIETY OF IRELAND.

THE opening meeting of the Surgical Society of Ireland for the session of 1874-75 was held on the evening of Friday, the 4th of December. The President of the College of Surgeons, Dr. JOLIFFE TUFNELL, occupied the chair.

The PRESIDENT delivered the opening address, which we published in our last issue.

Mr. WHEELER brought forward

#### A CASE OF ELEPHANTIASIS ARABUM.

The subject of this case was a woman, thirty years old, who was admitted under his care on the 16th of October, 1874. He states that she continued to suffer from the disease for a period of eighteen years. Her father was alive, the mother died after confinement, and the rest of the family were all healthy. The disease began with a pain in the foot, when the patient was 10 or 11 years old, the ankle then swelled, again subsiding and again enlarging. She suffered during this period from the fever known as elephantoid fever, which continued periodically for about a year and a half. The disease appeared to become stationary as regards enlargement for about two years, and afterwards the pain commenced anew and the limb continued to enlarge, but not going further than a little above the ankle-joint. The "crvice," as it was called by Virchow, formed at the inner malleolus, and the folds of skin lying on one another caused ulceration. A large excavated ulcer now formed, five inches in length and four in width, and pieces of bone came away in the vicinity of the ulcer. It appeared

that in this case elephantiasis preceded ulceration, and higher up in the limb the ulceration preceded the elephantiasis. In that he could only reason analogically, inasmuch as the tissues of the limb where he amputated were perfectly healthy, and as the disease had been stationary for some time in the limb a little above the ankle, before ulceration of the superior part of the limb commenced, it would appear that in this case ulceration preceded elephantiasis. In this case the limb was immensely developed, the blood-cells and reticular connective tissue, with the fascia over the gastrocnemius muscle, was enormously thickened, and its elements, more lax than ordinary, were abundant in intercellular substances. The tunica adventitia of the blood-vessels, popliteal artery and vein was very much thickened, otherwise the vascular coats were normal. The size of the sound limb as compared with the diseased was as follows, in inches: Sound—round ankle, 8 $\frac{1}{2}$ ; round calf, 13; round dorsum of foot, 9 $\frac{1}{2}$ . Diseased—round ankle, 20; round calf, 26 $\frac{1}{2}$ ; round dorsum of foot, 18 $\frac{1}{2}$ . The operation was performed on Nov. 3rd, 1874, the patient being placed under ether by Mr. Richardson's apparatus, which is considered, in the City of Dublin Hospital, as the best apparatus for the administration of ether. Three small vessels were ligated with the femoral artery, and an enormous quantity of venous blood flowed from the femoral vein, which after some time ceased when the limb was elevated. After the operation the patient suffered from some collapse, pulse feeble, perspiration over face and trunk, lips anæmic. By the administration of stimulants she came round gradually, has since been progressing favourably, and is at the present time able to sit up in her bed.

Mr. WHEELER brought forward a second specimen, the particulars of which are as follows: The subject of the operation was a boy, 18 years old, who was admitted under his (Dr. Wheeler's) care on September 24th of the present year, suffering from disease of the knee-joint. The previous history of the patient showed that he had synovitis from a fall on ice, aggravated by a second injury incurred by falling from an axle-tree of a car. The condition of the patient upon admission was as follows: Pulse 124, temperature 102°, night sweats, bad appetite. There was an attempt made to place the limb upon a splint (MacIntyre's), but this caused so much pain that it had to be abandoned. Tonics were administered, and after some time the health was slightly improved. The difference between the sound limb and the diseased was as follows: The circumference below the patella of sound limb in inches was 11 $\frac{1}{2}$ ; round the joint 13; above patella 12 $\frac{1}{2}$ . Diseased limb—below the patella 13 $\frac{1}{2}$ ; round joint 17 $\frac{1}{2}$ ; above patella 15 $\frac{1}{2}$ . The diseased member was between four and five inches shorter than the sound, and perfectly useless to the patient. There was a slight pain complained of, and traction of the limb, but there was no intense suffering. The pressure on the head of the tibia caused considerable pain, and there did not seem to be much thickening of the periosteum of the femur. On Nov. 27th he (Mr. Wheeler) amputated the limb, having placed the patient under ether with Mr. Richardson's apparatus. The operation was performed by the bloodless method, with Esmarch's apparatus. He (Mr. Wheeler) first endeavoured to save the limb by resection; having had the full consent of the patient, as the President was aware, determining, if resection failed, to amputate the limb. At about five o'clock in the evening of the same day he found the patient suffering from hæmorrhage of so profuse a character that he saw the life of the patient was in imminent danger. Having compressed the femoral artery, he quickly opened up the stump and secured there a large vessel. The patient afterwards had a slight attack of rheumatism in his left wrist and right shoulder, but is since improving rapidly.

#### CANCER OF MALE BREAST.

Dr. MAPOTHER said: This scirrhus breast I removed last September from a man aged 35, who had been sent to my wards in St. Vincent's Hospital by Dr. Ryan, of Tipperary. It was two years growing, and had ulcerated a month before admission. The tumour most easily peeled off the pectoral, as in the male there are none of the suspensory bands which support the heavier organ of the female. There were four or five hard glands immediately along the axillary vein, which I thought safer to leave there. Since the amputation they have softened and lessened. The early age of the man and the size of the cancerous mass may make the specimen worth placing in the museum, although we have a few of the same kind, including one which must always create a painful interest in this Society.

Mr. H. GRAY CROLY said he wished to bring before the Society

A CASE OF ACUTE TETANUS,

which carried off the patient in twenty-eight hours; and as it occurred in a female without any well-marked cause, and the symptoms were very severe, he thought it was worth placing on record, and should be glad to hear from the experienced surgeons present anything that could throw light on this formidable disease. Martha Cullen, a married woman, æt. 30 years, residing at Kingstown, was admitted into the City of Dublin Hospital on the forenoon of Wednesday, Nov. 4th, suffering from tetanus. On examining the patient for any cause of the attack, a small, unhealthy, painful ulcer was found on the inner malleolus of the right side. The structures in the neighbourhood had an unhealthy, puffy, and dark appearance, and the foot was somewhat swollen; no other cause could be found. On examining the condition of the sufferer, she was found to be labouring under considerable trismus, the jaws being tightly locked, and the muscles of the neck were also in a state of spasm, causing a degree of opisthotonos. The eyes were partially closed in that forced way so characteristic of the affection, and the corners of the mouth were drawn up, causing the face to assume the "risus sardonius." The brow was wrinkled both longitudinally and transversely, showing spasm of the occipito-frontalis and corrugator supercilii muscles. The whole expression of face was strangely altered. On inquiring from her when and how she first became affected, Mr. Croly learned with some difficulty, owing to the trismus, &c., that it had commenced on the previous morning by frequent stretching and yawning, and a feeling of general malaise, which soon developed into the conditions described. She had the characteristic sputtering cough, after which a quantity of viscid frothy mucus would be extruded through the closed teeth, which required to be frequently removed with a cloth. She was immediately carried up to a bed, round which were ordered to be placed screens, and carpet on the floor, to keep an even temperature and avoid noise. A fresh poultice with some tincture of opium spread on it was applied to the ulcer, a hot jar to the feet, which were cold, as were the hands, and a bed-rest was placed behind her, she finding the breathing easiest in the semi-sitting posture. Some whisky and beef-tea were administered in small quantities through a convenient gap which existed on the left side of her mouth, the teeth being absent. This means, however, soon failed, in consequence of the spasms of the glottis caused by the slightest drop of fluid being introduced, which fluid she kept gurgling up and down in her throat for some seconds, and then extruded with the frothy mucus through her closed teeth. Mr. Croly ordered an enema to be given as follows: Olei terebinthinæ, ʒiv.; tincturæ assæfœtidæ, ʒij.; olei olivæ, ʒi; magnesiæ sulphatis, ʒiv.; decocti hordei ad. Oj. Also a draught consisting of chloralis hydratis, gr. xxx.; syrupi Tolutani, ʒj.; aquæ menthæ pipéritæ ad ʒss. Wine and milk were ordered, ad libitum, but only small quantities of the wine and milk were administered, owing to the difficulty of deglutition. The enema was administered, and in some time brought away a considerable quantity of feces of a natural appearance. In the evening Mr. Croly again saw the patient, and finding that she had not passed any urine since she came in, introduced a catheter (No. 9 gum-elastic male) and drew off about three-fourths of a pint of urine. He then ordered her nutritive and stimulating injections, and sinapisms to be applied to the calves of the legs and over the epigastrium. To relieve the violence of the spasms, which were now very distressing, he gave her a few whiffs of ether with Mr. Richardson's apparatus. The following is a concise account of the time and duration of the spasms, as observed and noted by Mr. Arthur H. Benson: From 8 to 9.10 p.m. she had had four exacerbations; the next was at 10.15, violent, 2m. 10s. duration; she then had an enema of whisky and beef-tea. At 11.15 she had another spasm, shorter and less severe than the former, 1m. 30s. duration; the pulse was 148, hands deadly cold and clammy, forehead perspiring profusely, and cold; an enema of whisky and beef-tea, quinine and belladonna was administered. At 12.5 p.m. she had another severe spasm, 2m. 15s. duration, pulse 154, hands, face, and feet cold and clammy. At 12.30 she had a spasm, longest of all in duration, lasting 4m., but with a period of tranquillity in the middle lasting 1m. 30s., pulse 180, respirations 51 per minute. 12.45, short and sharp, 1m. 30s. duration, pulse 152, difficult to count; beef-tea and whisky enema administered. 12.58, 1m. 35s. duration, pulse 160. 1.5, 2m. duration; pulse

stronger. After this she fell asleep for a while. At 1.34 there was a final violent struggle, during which the power of distinct speech seemed for a moment to return, for she called out quite distinctly, "Nurse, don't leave me," after which she relaxed her iron grip of the nurse, and falling back on her pillow, expired in a few seconds, at 1.35 p.m. on Nov. 5th. The post-mortem examination was performed next morning by Mr. Barker, who removed the brain and spinal cord together. On examining the dura mater, when the calvarium was removed, it was found to be engorged with dark fluid blood, the basilar artery was atheromatous in some places, and when opened a gush of black fluid blood escaped. The meninges were injected, and the brain and spinal cord, when opened, were found to be congested. Mr. Croly proceeded to say that in such a case as this there was little hope of benefit to be derived from any treatment, and that he could not make up his mind as to the exact cause of the tetanus. The President would remember some cases of tetanus which he (Mr. Croly) had seen under the care of the President and of the late Professor Hargrave. The first case was that of a child who had been severely burned over the abdomen. The sufferer was kept under the influence of chloroform, the only effect of which was that it relieved the spasms for a time and allowed the mouth to be opened, but on the introduction of fluid the spasms came on as severely as ever. The second case was that of a man who had a compound fracture of the leg, under Dr. Hargrave's care. The question of amputation was considered, but it was determined to endeavour to save the leg. The man got well-marked trismus, but he recovered and had a useful limb. The third case was one of a boy who was wounded by a hook when hanging up a piece of meat in a butcher's stall. He was kept under chloroform, and made a good recovery. The fourth case was caused by burns. The fifth case was one of injury to the thumb, which proved rapidly fatal; it was under the care of Dr. Hargrave. The sixth case was that of a man who suffered from an ulcerated foot, and who died rapidly. The seventh case was that of a lacerated foot where the opisthotonos was so great that the man was thrown out of his bed. The eighth and ninth cases, one of which was under his (Mr. Croly's) care, occurred in a tan-yard, where the individuals were obliged to work in cold water, and were then exposed to hot water. Both of these were well-marked cases of tetanus; both recovered, and one of them still retained the peculiar grin on his face characteristic of the disease. The tenth case occurred under the care of Dr. Hargrave, and followed amputation of the breast, which was rather unusual. The eleventh case was a compound fracture of the leg; and the twelfth case was also a compound fracture of the leg, in which the tibia was involved. The thirteenth case was a compound fracture of the finger; the finger was amputated and fatal tetanus supervened. He should say, from his experience, that all cases of acute tetanus were fatal. The cases that recovered were those in which the symptoms were not very strongly marked. With respect to the premonitory symptoms, some surgeons laid it down that difficulty of deglutition was the most decided, and others attached importance to frequent yawning and stretching of the limbs. The yawning, he had no hesitation in saying, was a premonitory symptom that should be most carefully attended to. If they anticipated tetanus, it was clear that preventive treatment would be most important, and he thought that the anti-tetanic pill suggested by the late Mr. Peile had hardly received the attention it deserved. Mr. Croly having stated the composition of the anti-tetanic pill, said that he had put a patient who had received a wound by standing on a rusty nail, and others suffering from compound fractures and punctured wounds of the palm of the hand, on the anti-tetanic treatment, and they had not been attacked by trismus, but, of course, that was not conclusive. He knew that tetanus had occurred when the wounds were of the most trivial character, even when the skin was not injured, so that they could not say what wound might produce it. Some attributed tetanus to irritation of the spinal cord; but they had had experience of wounds of the cord where no such result followed. Mr. Croly concluded by saying he should be glad to hear the opinions of the members of the Society as to any simple line of treatment to be adopted in these cases.

Dr. ROBERT McDONNELL said he was probably the only one present who could say that he had ordered over and over again from Dr. Peile's dictation the anti-tetanic pill. He was the last pupil of that gentleman, and had frequently ordered it from his dictation. Calomel, in small quantity, always

formed a portion of the pill, the other ingredients being the same as those mentioned by Mr. Croly. Dr. Peile told him that he had never known a case of a lacerated wound in which the anti-tetanic pill had been given to have been followed by tetanus, and he was a man who lived to a great age, was a long time connected with a large hospital, and had had great experience as a surgeon.

Dr. STAPLETON remembered a surgeon in Jervis Street Hospital, a namesake of Dr. McDonnell's, who never got a case of lacerated wound in which he did not administer the anti-tetanic pill containing a small quantity of calomel. He was, however, most unlucky, for, although he always gave the pill, he had more cases of tetanus than any of the other surgeons. He did not believe there was such a thing as a tetanic wound. He had seen persons torn almost limb from limb who recovered, and he had seen a girl who only sustained a slight abrasion of the skin, which did not even bleed, die of acute tetanus. He believed that where there was a compound fracture, with a spicula of bone irritating the nerve, the patient would be liable to tetanus, and these were the cases in which, if amputation had been performed, the patient would have recovered.

Dr. RAWDON MACNAMARA believed that a most important factor in the production of tetanus was atmospheric influence; they constantly met with cases of the most extraordinary compound fractures which got well satisfactorily in one condition of the atmosphere, whilst in another condition a very trivial wound would produce tetanus. He thought they were in the infancy of that description of science, and believed the time would come when they would understand what it was that tended to the production of tetanus in wounds at one period of the year, and why it was that wounds of a similar or more severe nature would not develop the disease at another period. It had been proved by statistics over and over again that in some large hospitals the simplest operation could not be undertaken without the development of tetanus, and he believed that this must be due to some peculiar condition of the atmosphere. With regard to the treatment of tetanus, that was a most important question, and he should like to hear from Mr. Croly why he had omitted ice in the treatment of the case? With regard to the use of chloroform, he (Dr. Macnamara) believed he was the first person who had ever employed it in the treatment of tetanus. He had been sent for by Master Fitzgibbon to see a carter in his employment who had received an injury: finding the case was one of tetanus, he had the man brought to Jervis Street Hospital, where he was placed under the care of Professor Power. It was about the time that chloroform was first introduced, and he suggested its employment to Professor Power. The effect was most extraordinary; the man's face became quite livid, and respiration seemed for a time to be perfectly suspended. Since then he had seen chloroform used in cases of tetanus, but he had always dreaded it. He suggested that the Society should devote a night to the special consideration of the treatment of tetanus, which might be looked upon as one of the opprobria of surgery.

Mr. CORLEY said that in many cases of fatal tetanus the disease was anticipated by the patients themselves.

Dr. BARTON said that within the last month he had a case of amputation followed by trismus. In that case yawning was the first symptom, and was noticed the day before the trismus became marked, but he could not say whether there was any stretching of the limbs. Chloral was used, and hypodermic injection employed, so as to control the spasms, but the patient died, apparently worn out.

Dr. O'LEARY mentioned a case of trismus which had come under his observation, caused by a very extensive burn. The woman could not use her arm; she had yawning, and had an impression on her mind that she would get lock-jaw; then her neck became stiffened and she was unable to open her mouth. This passed off for a time, but in two hours afterwards she got another attack, with severe spasms of the larynx. Mr. Croly saw her with him the next day, and she died of spasm of the larynx sixteen hours after that, and forty hours after the trismus had set in.

Dr. HENRY KENNEDY said that Mr. Lockhart Clark, having investigated several cases of lock-jaw, had invariably found extensive mischief in the spine, and this pointed to treatment by ice as being likely to prove beneficial. He believed that when medicine could not be given by the mouth the best mode of administering it would be by subcutaneous injection, as administration by the rectum caused intense pain, not only in the sphincter, but in the bowel itself, which was often thrown into a state of convulsive action.

Mr. E. HAMILTON, V.P., concurred with Dr. Macnamara as to atmospheric influence in the development of tetanus. It was a well-known fact that, some years ago, in London, in an immense number of cases where the ligature was applied, tetanus followed, and that fact had been brought forward as a strong argument against the use of the ligature, whereas tetanus was very prevalent in London at that time, and its prevalence, he believed, was due to a certain condition of the atmosphere.

Mr. CROLY, in reply, said that the late Professor Hargrave always objected to the anti-tetanic pill, because it contained calomel; but he believed the original pill of Mr. Peile did not contain calomel. With regard to Dr. Stapleton's observations, he thought that gentleman would agree with him that there was a certain class of wounds which they were more or less afraid of being followed by tetanus. The reason ice was not used was because it would lower the temperature, and the condition of the patient being extremely low, it was not considered advisable to employ it, and for the same reason he did not use nicotine. He did not believe there was any specific remedy for tetanus. The acute cases baffled all treatment. Chloroform did not exercise a curative action, and it was objectionable because it depressed the action of the heart, while ether stimulated the heart's action, and was therefore preferable. He had not tried the subcutaneous injection, preferring, in fact, to keep up the patient's strength by stimulants rather than trying to treat the symptoms, which he believed there was but little use in doing. He believed that cold had a great deal to do with the production of tetanus. It was stated that the inhabitants of the Tongo Islands were peculiarly liable to tetanus, and were in the habit of treating it by introducing a reed into the urethra. Mr. Wallace mentioned that he had introduced a bougie smeared with red precipitate ointment into the urethra in a case of tetanus; the spasms were very severe; but in twenty minutes after the introduction of the instrument they became less frequent, and finally disappeared; but he omitted to say whether the patient finally recovered.

Dr. HENRY KENNEDY read a paper on

#### THE DIFFERENCE OF THE RESPIRATORY MURMUR IN THE TWO LUNGS.

In the year 1837, when Dr. Stokes' very able work on the lungs appeared, there was a statement in it to the effect that the greater number of individuals had stronger breathing in the left than the right lung. This most important statement seemed, from some unaccountable reason, to have been overlooked, for not a single author, as far as Dr. Kennedy was aware, had noticed it, or named Stokes in connection with the point. In 1867 Flint states that on examining some twenty-four persons he found, somewhat to his surprise, that in the great majority the vesicular murmur was loudest in the left lung. Again, in the last edition of Walshe, which appeared in 1871, the author states he had grounds for changing the opinions advanced in former years, for that he now believed the respiratory murmur was sometimes stronger in the left than the right lung. This was all the notice Dr. Kennedy could find bearing on the point; and as it seemed to him a question of much interest, not to say importance, he had, some years back, spent a considerable time in examining and tabulating a large number of cases. Unfortunately, the notes relating to two-thirds of these cases had either been lost or mislaid, and so the paper now brought forward was not at all as complete as it would otherwise have been. The number of cases he could now speak of amounted to about 100: of these, in nearly 80 per cent., the breathing was strongest on the left side, and in 20 of these, again, there was a very decided increase in its intensity on same side, which he had indicated by the plus mark. He thought it but right to state every means had been taken to make the observations accurate. For the opportunity of carrying out these investigations he had been indebted to his friend Dr. Shannon. The author then went on to say that he believed the original observation of Stokes to be correct, and for his part he had acted on it for many years, and in several instances was able to declare that the phenomena observed, which consisted in the greater intensity of the vesicular murmur on the left side, was quite consistent with a perfect state of health. This in itself was no slight matter, and more particularly where other circumstances might lead to the idea of the invasion of phthisis. All these points, however, were to be found fully discussed in the work to which he had so often referred.

The Society then adjourned.

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THE

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## The Medical Press and Circular.

"SALUS POPULI SUPREMA LEX."

WEDNESDAY, DECEMBER 30, 1874.

## THE FROST AND THE DEATH-RATE.

WE showed a week or two ago the great part played by extreme cold in cutting short the lives of the weak at the two extremes of life; and this important point has been kept before the attention of the public for the last fortnight by the unwonted rigour of our winter. With the thermometer showing a cold of some fourteen degrees below the freezing point of Fahrenheit's scale, we can easily judge what a number of feeble old persons and young children must have succumbed in the struggle for existence, which Mr. Darwin has so clearly shown to be the cause of so many of the phenomena of man's existence on this planet.

These considerations make it clear enough that the main problem of the science of hygiene should be to get so entirely rid of misery and indigence that the death-rate in winter should show no great increase over that of summer. Among the rich, and those who can afford warm rooms and plenty of woollen clothes, the death-rate is probably but little raised by the lowest temperature ever attained in our climate. A rich person with tendency to bronchitis can, by coal fires and well-constructed apartments, enjoy all the year round a climate suited to the wants of his feeble lungs, and may reach old age and scarcely ever be in danger from the vicissitudes we have latterly undergone; but a poor person, dwelling in a miserable hut, with scanty clothing and wretched food, is totally unable to withstand the excessive cold, and is suddenly carried off by suffocative catarrh or spasm.

There is certainly no immediate prospect of any European state attaining such an ideal absence of poverty as that we have hinted at. It was hoped by many that the condition of Ireland was exceedingly ameliorated; but recent reports would tend to show that the condition of the peasantry and townspeople in many Irish towns is still frightful to contemplate. The dismal tidings, too, recently sent us from Glasgow and other Scottish cities has filled many a sanitarian with dismay; and the less we say about the condition of Liverpool, Leeds, Manchester, and Birmingham as to health the better. Our British population at present, in addition to the evils of filth and extreme destitution, is, it must be confessed, terribly kept back by the insane love of strong drinks, which seems, indeed, in

Britain and in Holland to arise from some historical and local causes, probably combined with the very inartistic training of the populations of these countries.

In the midst of all these sad facts it is cheering to hear that progress in public health still continues in spite of such numerous exceptions. A few years ago it would have, we suppose, been thought that every European nation was happier than poor France. According to shallow critics, that nation was now effete, and must be wiped away from the catalogue of civilised states. The volumes of elaborate statistics which M. Block has recently published give, among other things, some very curious information on the population of France. The wealth which France has recently been discovered to possess has taken many persons by surprise. There must have been a vast amount of wealth accumulated by Frenchmen of all ranks to enable them to collect in two or three years so many millions for investment in their new Rentes, and that the vast proportion of these new Rentes is held in France is made evident by the very small amount of coupons for which France has now to make provision in foreign countries. When the issue was first made by M. Thiers, it was, largely by foreigners, and particularly by Englishmen and Germans, that the loan was taken. But gradually the French have bought their new stocks, and now the proportion of the French debt which is held out of France is very inconsiderable.

The consequence of this vast accumulation of wealth in France is that the comfort of the peasantry of that nation is now greatly increased, and the chances of long life wonderfully augmented. It would seem, as pointed out by Dr. Letheby in his now classical essay on the health of towns, that the French death-rate is somewhat lower than that shown by our registers, and that, too, in the face of the fact that the French estimate includes the deaths of still-born infants, which in England is passed by unnoticed.

"What is interesting to notice," says the *Saturday Review*, in a paper published on the 21st of November, 1874, "is that the wealth and the accumulation of wealth which these facts indicate are the acquisition of a population which, if not stationary, increases very slowly indeed. M. Block is proud of this, and sees in it a proof of the enlightenment and good sense of the nation to which he belongs. Political economists for a long time taught the doctrine that the road to prosperity was to keep the population within the limits of a comfortable subsistence. M. Block says that what Malthus preached the French have practised. But he says that the process is not due to a sudden and violent conquest of human nature, but simply to the gradual perception of what is fitting and necessary, which goes with increasing civilisation and intelligence."

Over-population is, according to this view, only possible when the people are degraded, ignorant, and without hope and ambition. Civilised people will be guided in this matter by the most obvious attention to what their own interests demand. In England a different mode of looking at things prevails. The population of England has doubled within a period in which the population of France has remained almost stationary, and with this rapidly increasing population we associate many things which we prize highly—our very great wealth, our colonial empire, our habits of independence, our love marriages, our trust that the crumbs will be provided for the sparrows.



But it must be remembered, too, that we have many evils to counterbalance the advantages we have gained by our colonies. The growth of a set of enormous and unwieldy cities over the length and breadth of England and Scotland is no unmixed boon to these countries. In cities it is that the healthy offspring of our rural population is reduced so often to the condition of the pallid and unfortunate factory hand, unfit to enjoy life himself, or to engender offspring strong enough to cope with the rigours of our northern climate. Among the victims to King Frost are tens of thousands of rickety children in the courts and alleys of our large industrial hives—children which ought never to have been born. Examples of such unfortunate populations are indeed rife enough in French industrial cities, such as Lyons, Lille, or Paris; but in France perhaps five-sixths of the nation live in the country, whereas in England about one-half of us live in cities.

We cannot, then, look forward without some misgivings to the sanitary condition of England and Scotland so long as our means of purchasing wheat and cattle are so exclusively those industries which require the artisan to sacrifice his health to a certain degree by sedentary occupation in towns. Doubtless, science is too far advanced at present to allow of the matter remaining undiscussed and without an attempt at a remedy; but there is, indeed, much to be done, and it is melancholy that a little cold weather or a slight impediment in trade should still produce such a rapid increase in the death-rate as we have alluded to.

## Notes on Current Topics.

### Medical Practice in 1700.

THE *Chemist and Druggist* quotes from the *History of Advertising* the following curious advertisement of a regular London physician found in the *Flying Post* of Jan. 6, 1700. It presents an idea of the medical practice of that date perhaps but little understood.

AT the Angel and Crown, in Basing Lane, near Bow Lane, liveth J. Peehey, a Graduate in the University of Oxford, and of many years' standing in the College of Physicians in London: where all sick people that come to him, may have for Six pence a faithful account of their diseases, and plain directions for diet and other things they can prepare themselves. And such as have occasion for Medicines may have them of him at any reasonable rates, without paying anything for advice. And he will visit any sick person in London or the Liberties thereof in the day time for two shillings and Six pence, and anywhere else within the Bills of Mortality for Five shillings. And if he be called in by any person as he passes by in any of these places, he will require but one shilling for his advice.

### Popliteal Aneurism.

At a meeting of the Clinical Society, on December 11th, Mr. Rouse mentioned a case of popliteal aneurism occurring in a man, aged 40, who had contracted syphilis twenty years ago, and whose mother had died of cancer. Two years before admission a small swelling appeared in right ham, which gradually increased, the leg becoming stiff and painful. Pulsation was noticed in the tumour six months before admission. A purring bruit could be heard. The

femoral artery was tied, and in a few days the tumour decreased in size, and pulsation ceased. It again enlarged, and a patch of skin over the tumour sloughed, and gangrene of the foot ensued, necessitating amputation of the thigh. The patient recovered well. Such cases are very obscure, in having sometimes given rise to great mistakes in diagnosis. In some cases malignant tumours have been considered aneurismal, and the reverse. On examining the limb after its amputation, there was found to be a large aneurism of the popliteal artery, the outer and inner walls of which had sloughed away so that a cavity had been formed filled with clot partly disintegrated, the popliteal trunk entering the sac above and the tibial arteries leaving it below. The popliteal vein was plugged by adherent clot.

### Aneurism of the Abdominal Aorta and Heart.

At a meeting of the Pathological Society of London, on the 15th inst., Dr. Dickenson showed a specimen of aneurism of the abdominal aorta, where the diagnosis had been very obscure. It was from the body of a man aged 78. In June, 1874, patient commenced to have redness and swelling of left testicle, followed by pains in course of left ureter, succeeded by obstinate constipation and vomiting. Bed-sores supervened, the abdomen was flaccid, and deep pressure on the left side of umbilicus caused great pain, but no swelling was felt. Soon after this, deep-seated pulsation was felt where the pain was felt on pressure, and this gradually became more distinct, until sixteen months after the first attack, when he had pain and syncope, with bloody stools, which carried him off. An aneurismal tumour was found pressing from the left side of the aorta and pressing on the left ureter, about an inch below the kidney, the ureter being stretched over it, and also pressing on the descending colon, into which it had burst.

Dr. Reginald Southey showed a specimen of aneurism of the heart, from a soldier who had served in India. A double murmur was audible over the lower part of the cardiac area and near the apex. Anasarca followed and left pleurisy, which was tapped, and four and a half pints removed by paracentesis. An aneurismal sac was found in the wall of the heart opening by an orifice the size of a quill into the left ventricle, near the apex.

### Dr. Edmunds' Post.

THE important posts of Medical Officer of Health and Public Analyst to St. James's—vacated by the death of the late Dr. Lankester—were filled on Monday last by the election of Dr. James Edmunds, of Savile Row. There were sixteen candidates for the offices, many of them men of well-known professional eminence, and nearly every member of St. James's vestry was present at the election. Dr. Edmunds was one of the most distinguished prizemen at his college, and among other classes, distinguished himself in that of chemistry under Dr. Letheby. He was one of the medical visitors sent down by the General Board of Health to Newcastle and Dundee in the year 1853 for the terrible epidemic of cholera which then visited those towns. He is a Member of the Royal College of Physicians of London, and has long taken an active interest in social and sanitary ques-

tions. He was also Medical Officer for some years to the H Division of the Metropolitan Police.

Dr. Edmunds is an able speaker and writer, and has shown immense energy, assisting on some of the forlorn hopes, such as the education of women in midwifery, and the up-hill war against alcoholic intemperance, a vice which causes so much disease and misery in England. He ought to be the most useful medical officer of health in London, and we hope to find him the most popular.

### Death from Chloroform.

THE *Canada Medical Record*, November, 1874, says: "One of these deplorable accidents occurred lately in Kingstown, the victim being a lady who was having a tooth extracted. The occurrence of like fatal issues is from time to time recorded in the news of the day, and most generally from chloroform having been taken during the performance of some minor operation, especially in dental surgery. We have been struck by the fact, and can only account for it by the nature of the operation, which generally permits or requires patients to assume a sitting posture. This position favours cerebral anæmia, which is the cause of death, so that the first remedy to be tried is change of posture as recommended by Nélaton—the patient to be inverted, with the feet upwards and the head downwards. In a case reported by Dr. Sims, of New York, life was restored by this method after respiration had ceased for fifteen minutes; and other cases are recorded where this plan had succeeded after other plans had failed."

When we read the account of this chloroform accident, which occurs nearly at the same time as the two deaths in London, one at the Eye Hospital in Moorfields, the other at the Royal Free Hospital, we may well ask why ether is not employed instead of chloroform. At the Royal London Ophthalmic Hospital both Mr. Critchett and Mr. Couper are in favour of ether *versus* chloroform. We really maintain that it is high time to ask why poor people's lives are to be sacrificed to routine.

SIR WILLIAM BOYD, one of the oldest graduates in arts and medicine of the University of Edinburgh, died last week. He was born in 1803, and was knighted in 1833.

A REMARKABLE success appears to have been attained by a little work entitled "The Pharmacopœial Companion to the Visiting List," by Dr. Bartley, the first edition of which has run out in ten days, and a second is already announced. The *brochure* under notice is a small oblong, of twelve pages, for carrying in the Pocket-book or Visiting List, and the idea formed by the author of giving to the busy practitioner a handy and reliable posological table of the medicines of the British Pharmacopœia arranged according to their action is excellently carried out, and deserves the success which it has so quickly obtained.

THE epidemic of diphtheria at the soldiers' huts on Woolwich Common has not disappeared, notwithstanding the sanitary precautions which have been taken. Within

the last few days three more children and one woman have been removed from the huts to the Herbert Hospital, in consequence of being attacked by the disease, but all the cases which now occur are said to be of a milder type than formerly, and there have been no more deaths.

In his return for the past quarter the Registrar-General for Ireland reports that there were registered in the 791 registrars' districts 33,768 births—a number equal to a rate of 25.4 in every 1,000 of the estimated population—and 19,636 deaths, representing an annual mortality of 14.8 per 1,000.

In England, during the same quarter, the birth-rate represented was 35.2 in every 1,000 of the estimated population, and the mortality 20.8 per 1,000.

The rates represented by the births and deaths registered in Ireland are higher than the averages for the corresponding quarter of the preceding five years. In the case of deaths the increase is considerable, and was mainly caused by the prevalence and fatality of those zymotic diseases which, if not altogether preventable, can be very much mitigated in severity by proper sanitary arrangements. Scarlet fever, which had been very fatal in the previous nine months, proved more destructive during last quarter. The disease was principally confined to the provinces of Leinster and Ulster, having still further declined in Munster. The returns for Connaught show an increasing fatality in that province, which had been comparatively free from this pestilence.

The following counties had the highest birth-rates:—Mayo 30.3 per 1,000 of the estimated population, Antrim 29.1 per 1,000, Kerry 28.4, Carlow 28.2, Dublin 27.2 per 1,000, Louth 26.6, and Armagh 26.0. The counties having the lowest birth-rates were—Meath 19.6 per 1,000, Fermanagh 21.4, Tyrone 22.1, Monaghan 22.5, Queen's 22.7, and Wexford 22.8.

## Foreign Medical Literature.

### PSORIASIS OF THE TONGUE AND BUCCAL MUCOUS MEMBRANE.

DR. MAURIAC, Physician to the Hôpital du Midi, of Paris, has written an interesting pamphlet on the above subject, from which we translate the following conclusions:—

Psoriasis of the tongue and of the buccal mucous membrane is a chronic inflammation in which two principal anatomico-pathological elements are constantly noticed. The first is a sclerous inflammation of the papillæ and superficial layers of the derma; the second, an epithelial hypersecretism which condenses in the form of grey, opaline, white plates, and which comes away in scales, squames, exclusively formed of epithelial cells.

Some authors have wrongly called this affection ichthyosis of the mouth, for it is evolved, whereas it is the property of ichthyosis not to be evolved, and to constitute a deformity rather than a disease.

There exist other anatomico-pathological elements beyond the psoriasis itself, but they are only of secondary importance. These are: lichen, pityriasis, ulcers, fissures, varicosity of the veins, glandular hypertrophy, &c.

In bucco-lingual psoriasis the parts attacked are in the order of frequency and gravity: the upper aspect and borders of the tongue, commissures of the lips, the

internal aspect of the cheeks, the internal aspect of the lips and their edges, the gums and palatine arch.

There are several phases in the anatomico-pathological process of bucco-lingual psoriasis: 1, the erythematous period; 2, sclero-squamous period; 3, formation of ulcerations, crevasses, and rhagades; 4, irregularity of the edges of the tongue, mammillar condition, with islands, furrows, &c., either resulting from a scar or from an atrophy of the derma, produced by the pressure of the scales.

The plates, bands, streaks, and scales formed by hypertrophy have a grey, pearly, opaline, nitrate of silver colour. This last colour is observed in the group of bucco-lingual psoriasis of arthritic or dartrous character.

In syphilitic psoriasis, the element of psoriasis, properly so-called, occupies the second rank in this kind of lesion. The principal anatomico-pathological elements are erosions, plates, with mucous membranes of variegated colours, ecchymotic, vegetating, or horny, &c., and deep syphilitic ulcers, with tubercles and gummata. Eruptions of diphtheritic character are more common in syphilitic psoriasis than in the other varieties.

The hypertrophy of the papillae may go on to the formation of papillomata. Such lesions are benign or malignant. It is by the transformation of such benign papillomata into malignant ones that bucco-lingual psoriasis becomes changed into epithelioma or canceroid.

There exists, says Dr. Mauriac, a kind of artificial, or provoked psoriasis, which is produced by external exciting causes, and is not the manifestation of any constitutional disease. This has been described by the name of smoker's plates. When this is kept up, whilst smoking is left off, we must admit behind it a predisposition either general or local, or a constitutional disease.

Arthritis and eczematous diathesis produce the bucco-lingual psoriasis of typical form, that in which there predominates during the whole time of the process sclerous dermatitis of superficial nature, and excess of epithelium. Arthritic bucco-lingual psoriasis and this kind just named form two kinds so near each other that it is impossible to distinguish them if there exist not on other points of the body lesions proper to arthritis or eczema.

In syphilitic psoriasis the specific element (mucous plates, tubercles, gummata, deep ulcers, &c. predominates, and the throat is usually attacked, which is not the case in the just-mentioned groups; but not all the cases of psoriasis which arise in the course of syphilis are syphilitic. Syphilis may be merely an exciting cause, and may provoke the formation of an arthritic or an epitheliomatous psoriasis.

When a psoriasis has remained a long time without being modified, and remains confined in its special anatomico-pathological characters, when it does not attack the throat, and resists a specific treatment of syphilis, the great probability is that it is not syphilitic, even if it occur in a patient evidently syphilitic.

There are cases of bucco-lingual psoriasis which are transformed into epithelioma, and constitute a distinct species from their commencement to their termination, that is, a species in which we discover no constitutional disease. But there are also cases of arthritic nature, or even artificially caused cases, which end in being transformed into epithelioma.

The functional disturbances are much more grave in this species than in the others, at least, in the advanced period of the disease. Among these disturbances, we may note salivation, lancinating pains which radiate to the ears, difficulty of speech and mastication, and enlargement of the glands, &c.

The transformation of bucco-lingual psoriasis into a malignant disease of the tongue, or epithelioma, which is almost the only cancer of the tongue, is one of the most important points in the history of the disease.

There are internal remedies which are specially indicated in the three kinds of psoriasis, in arthritis, in eczema, and in syphilis. Alkalies, and, in particular, the

bicarbonate of soda, are given in arthritic cases; arsenic in dartrous cases, and mercury and iodide of potassium in syphilitic psoriasis.

Mercury and iodide of potassium, which are administered as touchstones in psoriasis of doubtful nature, are very dangerous when there is no syphilitic element. They hasten the epitheliomatous transformations in certain cases of psoriasis, and aggravate their malignancy.

There is no special local agent to be employed in treating the different kinds of bucco-lingual psoriasis. Prudence and moderation are necessary in the using of substitutive agents.

## THE IRISH MEDICAL ASSOCIATION.

AN announcement which is contained in our advertising columns of to-day claims the very earnest consideration, and, we hope, the active co-operation of the profession, and especially of the Poor-law medical officers in Ireland. The Irish Medical Association, which has served our brethren through so long a period, and to which we do not hesitate to add, most of the benefits which have been secured to Irish Poor-law medical men is due, needs reconstruction on a wider and more useful basis, in order that it may pursue its work with greater efficiency. It has, under many difficulties, contested the Public Health arrangements in the interest of the public and of the profession, but in dealing with this, as with other equally important matters, the numerical strength and the administrative power of the Association has been insufficient. The time has come for a thorough and perfect reorganisation, for the breathing of new life, for the reinvigoration of the energy of the Association, and, if possible, for the reattachment to it of any other organisation which is labouring in the same field. We express a most earnest trust that a successful, permanent, and hearty reconstruction of the Association will be effected. The insignificant outstanding debts of all the coalescing organisations may be settled by a very inconsiderable effort of liberality, and, if jealousies be set aside and personal interests forgotten, we believe that an Association may arise which can exercise fivefold the influence of any that has hitherto existed.

A VACANCY in the surgical staff of the City of Dublin Hospital has taken place by the resignation of Mr. Tufnell who has been so long connected with the institution, and who will, we presume, now take the place of the late Dr. Hargrave as Consultant. We are aware that since the last election of a member of the Staff, the method of selection has been materially altered, and the appointment of a Surgeon in the room of Mr. Tufnell will not rest solely with the medical officers as heretofore it would have done.

AT a meeting of the Council of the Royal College of Surgeons in Ireland, held on the 17th inst., the following resolution was passed, viz.:—

That Registered Pupils of the College be permitted to read in the Library each day it is open, from 11 to 6 o'clock, and to study in the Museum each day it is open, from 11 to 3 o'clock, and that they also be admitted to the Preliminary Examination of the College without payment of any further fee than that which they have paid for Registration.

A MEETING of the Surgical Society of Ireland will be held on Friday evening, the 8th of January, when the following communications are set down for reading:—

Mr. H. Gray Croly, "On the Removal of a Hair-pin from the Female Bladder."

Mr. Barton, "On Excision of the Hip."

Mr. Swanzy, "On a Case of Amaurosis."

## Correspondence.

### KING AND QUEEN'S COLLEGE OF PHYSICIANS.

TO THE EDITOR OF THE MEDICAL PRESS AND CIRCULAR.

SIR,—Although it is not customary among gentlemen to notice anonymous letters in the public press, yet there are occasions on which it becomes a duty to do so. Such an occasion, we believe, is offered by the letter signed "A Fellow of the College of Physicians," published in the MEDICAL PRESS of the 23rd December.

The writer of that letter is ignorant, if not disingenuous, for he proposes to "restore" to the King and Queen's College of Physicians the right to elect by ballot, apparently in ignorance of the principle that a right cannot be "restored" to a corporation which it never possessed.

Your anonymous correspondent has dug up from the Minutes of the College a Report bearing date 31st December, 1867, just seven years ago, recommending the College to obtain the power to institute the order of Member, and he states that "nothing has since occurred to alter the case."

Your correspondent appears to be entirely ignorant of the fact that the proposal at that time to create the order of Member was a change of front rendered necessary by the action of the British Medical Association in favour of the "one portal" system, which threatened the existence of the licences of all the corporations; and he appears also ignorant of the fact that this blow was parried by the insertion into the Government Bill—7th July, 1870—of the following:—

"Clause 20.—After the passing of this Act it shall be lawful for the King and Queen's College of Physicians in Ireland and the Royal College of Surgeons in Ireland respectively to confer the title of Membership of such Colleges respectively on any person having higher qualification in Medicine or Surgery than is signified by the title of Licentiate, or other title in lieu of Licentiate granted by such Colleges respectively."

The Rev. Dr. Haughton accompanied the President (Dr. Banks) and Registrar (Dr. James Little) of the College to London, and assisted them in obtaining the insertion of the foregoing clause into the Government Bill.

It thus appears that your correspondent's statement that "nothing has since occurred to alter the case" is unfounded. The interests of the College were amply secured by this clause, which must be inserted in any future bill proposing the abolition of licences.

In conclusion, the same desire which influenced us in 1867 to protect the Licentiates, now urges us to oppose the creation of an order of Membership without ascertaining their wishes. To repeat the words of the Dissent, we say: "A question so deeply involving the interests of the Licentiates should not be dealt with behind their backs by a small body, and one in which they have no voice." Bearing in mind that this identical charge of inconsistency was brought forward by Dr. Churchill at the meeting at which the Dissent was read (December 2nd), and that it was fully answered by

the Rev. Dr. Haughton, we are reluctantly obliged to conclude that your anonymous correspondent is either ignorant of the subject of which he writes, or deficient in the candour we deem essential in so important a discussion.

We have the honour to remain, Sir,

Your obedient servants,

R. D. LYONS,

F. R. CRUISE,

S. HAUGHTON, CLK.

## Gleanings.

### Injuries from the Bites or Stings of Small Animals.

ONE morning (Dr. M. E. Weise, *Wiener Med. Presse*, 1874, No. 35), in the principal city of Albania, Dr. W. was summoned to see the prima donna of an Italian theatrical troupe which was performing there, and found upon his arrival that she was suffering from some affection of the finger, which increased in severity with such rapidity that she was unable to go on the stage, and was obliged to keep to her bed. The first impression made by an examination of the finger was that it had been attacked by a paronychia, which had spontaneously opened; and this impression was strengthened by discovering, upon inquiring into the history of the case, that there had been a loss of sleep during the previous three nights from the intense pain, which had been at first dull, and, later, throbbing in character. An improvement took place under the use of warm water dressings, to which the treatment had been limited, since the patient persistently refused to allow an incision to be made; and further examination showed that a similar state of affairs existed upon the other hand. It was then stated by the doctor it was probable that these affections were caused by the bites or stings of some poisonous animal, and this was confirmed by the entrance of two other members of the troupe, complaining of similar painful swellings in their fingers. It was then found that the members of the troupe had killed many European scorpions and hornets in the foul and badly-kept room upon the floor of which they all slept. On the next day, the "page" of the company, who was the child of the director, was found to be suffering in a similar way. The agreement as to the locality at which the suppuration took place in these different cases was very striking. It was always in the furrow between two of the phalangeal articulations, and upon the volar side of the joint in six of the cases; being upon the dorsal aspect in but one.

In all four of the persons who were the subjects of this accident, the thumb was the part of the hand which was either first or exclusively affected. The trouble lasted about one week, and during the first three or four days the patients suffered severely from pain and loss of sleep. If the affection was left to itself it broke upon the fourth day, and then, according to its size or depth, resembled either a panaritium in the strict sense of the word, or a simple pustule, of the size of a pea, or perhaps as large as a hazel-nut. This was followed by a sense of relief, and there was soon a real improvement in the state of the patient, manifested by a return of sleep and appetite. The discharge of pus continued of considerable amount, and led to the formation of a loss of substance of circular form, which was but slowly replaced, and left a scar which was visible for a long time. As healing progressed, the epidermis fell off or was removed with the scissors; the newly-formed skin scaled off for some time, and the indurated edge of the cicatrix which was being formed caused much annoyance by the itching which was present in it. At the commencement of this affection it is almost always possible by careful examination to discover a black point, of the size of the point of a needle, situated near the centre of the tumefaction.

In the recent cases in Scutari, Dr. W. thinks that the choice as to their origin lies between the *Scorpio Europæus*, which is very frequently met with in Turkey, and the hornet (*Vespa crabro*), which is more rarely seen. It is well to be acquainted with the important constitutional symptoms to which lesions of this character give rise, so as not to be deceived by them when their origin is not plainly indicated.

## NOTICES TO CORRESPONDENTS.

**82** CORRESPONDENTS requiring a reply in this column are particularly requested to make use of a *distinctive signature or initials*, and avoid the practice of signing themselves "Reader," "Subscriber," "Old Subscriber," &c. Much confusion will be spared by attention to this rule.

Dr. THOMAS WILKINSON, Manchester.—We shall be glad to hear some hints as to the therapeutical and food value of alcohol. There are such various opinions on this point, from the teetotallers, who assert that alcohol is not a food in any way, and merely a drug like chloroform, to the disciples of Todd, that much discussion is required to ascertain what the real interpretation of experience ought to be concerning alcoholic drinks. As to tobacco, it has nothing to be said in its favour, we suppose, by medical practitioners, whatever outsiders and literary men may do. It is clearly a cause, a very frequent cause, of diseases of various kinds, and no doctor, of course, should encourage the use of tobacco either by precept or example.

CHARLES BRENT, Liverpool.—The controversy about the Contagious Diseases Acts goes on as usual, and we hear of a paper likely to be read by Mr. Acton at the Royal Medical and Chirurgical Society on similar Acts in France and Belgium. The opposition to the Acts is powerful, and the party against them is well supplied with the sinews of war and with enthusiasm, neither of which are present among the upholders of the Acts to any great extent at present. Such being the case, it is possible that the Acts may be abandoned for a time. They will probably be supplied by voluntary hospitals, which have long been much needed for venereal diseases.

Dr. THOMAS STAFFORD, Leeds.—There is an article on *Mébranous Dysmenorrhoea* in the "Archives Générales de Médecine" of 1873-4, which is very full. The author asserts that patients who suffer from the disease are sterile.

GRAINS OF HEALTH.—These three words have been blazoned before the public during the past few months in every conceivable mode and position. It now turns out to be the title of another patent medicine in the shape of a film-coated pill, which, doubtless, like "Du Barry's Revelant," *Arabea Food* (lentil flour in plain English), will enable the public to have "no more doctors' bills or any other medicine."

Dr. M. T. S. should write to Mr. Trimmer, Secretary to the College.

GOOD ADVICE TO A DYSPETIC.—A gentleman saw an advertisement that a receipt for the cure of dyspepsia might be had by sending two postage stamps to the advertiser, and the answer was, "Dig in your garden and let whisky alone."—*Boston Journal of Chemistry*.

LEPROSY.—In Casell's "Bible Educator" for January, writing on the leprosy of Scripture, Dr. Greenhill is of opinion that the disease was "multiform and changeable," modified by various complications, and comprising several species more or less distinct; that some of these varieties were contagious, and others non-contagious, and that all the contagious species rendered the patients ceremonially unclean; that is, was not a special or miraculous disease, existing only in those times and countries, but an ordinary malady, used occasionally by God for miraculous purposes; that it was not incurable by human means, though troublesome and obstinate; that it was not hereditary, though a disease of common occurrence among the Jews; that it was not the same as elephantiasis, though it is possible that this disease may occasionally have been complicated with it; that there is no evidence that any case of elephantiasis is mentioned under the name of leprosy, in any part of Holy Scripture; and that if the disease known as elephantiasis occurs at all in the Bible, it is probably in the case of Job.

Dr. C. H. F. R.—We will endeavour to find space for the whole in the form suggested.

Dr. COLLINS McELROY, Zanesville, is thanked for his complimentary note.

Dr. C. C.—Your suggestions shall receive attention.

SEVERAL commonfections are unavoidably postponed on account of the space occupied by Index.

ARMY MEDICAL SERVICE.—The next examination of candidates for commissions in the Medical Department of the Army will be held in London on the 15th and 16th of February. Applicants for admission must address the Director-General at once.

W. F. O' L.—We have no means of advising you as to the stability of any insurance company, and should, therefore, not wish to express an opinion thereon. The Government Statistical Report on the subject will afford you every information, but it will be difficult for you to take from it a just judgment on the subject, and impossible for us to give space to the examination of it.

NAVY MEDICAL SERVICE.—The next examination of candidates will take place at the London University on Feb. 15th. Dr. Armstrong will supply the necessary forms to candidates on application to the Admiralty Medical Department.

THE "COSPATRICK."—This fine vessel, of which report is current as we are going to press that she has been burnt in mid-ocean with nearly 600 souls on board, only three of whom were saved, was in medical charge of Dr. J. J. Cadle, an officer who is spoken of with great respect by all who knew him, and whose loss will be much deplored. The deceased was, we believe, a graduate of the Edinburgh University, and has been several voyages in charge of the same company's vessels.

LUCIDITY OF DEFINITION.—The *Philadelphia Reporter* notices a book by Benjamin Paul Blood entitled "The Anæsthetic Revelation and the Gist of Philosophy." What this work refers to will be clear from the following extract:—"By the Anæsthetic Revelation I mean a certain survived condition, or uncondition, in which is the satisfaction of philosophy by an appreciation of the genius of being, which appreciation cannot be brought out of that condition into the normal sanity of sense!"

## VACANCIES.

Royal College of Surgeons of Ireland. Professorship of Midwifery. (See Advt.)

Newcastle-on-Tyne Lunatic Asylum. Assistant Medical Officer. Salary, £100 per annum, with board and apartments. Forms of application to be obtained from the Superintendent.

Essex Lunatic Asylum. Second Assistant Medical Officer. Salary, £100, with board. Applications to Dr. Campbell, at the Asylum, Brentwood.

University of Edinburgh. Examiner in Medicine. Full particulars of the Secretary.

Great Northern Hospital, Caledonian Road, N. Physician. Honorary Surgeon. Honorary. Applications to be addressed to the Secretary.

Parish of St. Pancras, London. Medical Officer of District No. 8. Salary, £130 per annum. Applications, accompanied by testimonials, to be addressed to the Vestry Clerk, at the Vestry Hall.

Middlesex Hospital. Surgical Registrar. Particulars may be obtained of Mr. Evans, at the Hospital.

Hospital for Women, Soho Square, London. Surgeon and an Assistant Physician. Honorary. Applicants must address the Secretary.

Greenwich Union. Medical Officer to the Workhouse. Salary, £200. Candidates will be required to devote their whole time to the duties. Applications to the Clerk of the Guardians.

Worcester Union. Medical Officer for District No. 2. Full particulars of Mr. Knott, Worcester.

## APPOINTMENTS.

ARMSTRONG, G. C., M.D., Superintendent Medical Officer of Health for the Blackrock, co. Dublin, Urban Sanitary District.

BEDFORD, C. F., M.B.C.S.E., Medical Officer for the Workhouse, and Medical Officer and Public Vaccinator for the Slaford District of the Slaford Union, Lincolnshire.

BROWN, R., M.D., Sanitary Officer for the Rathmines and Rathgar Urban Sanitary District.

CARR, G. E., M.B., L.R.C.S.I., Resident Medical Superintendent of the Castlebar District Lunatic Asylum.

FAUBERT, W., M.B., Superintendent Medical Officer of Health for the Clontarf Urban Sanitary District.

GAMBLE, B., L.K.Q.C.P.I., Sanitary Officer for the Enniskillen Urban Sanitary District.

HERAPATH, C. K. C., L.K.Q.C.P.I., Medical Officer to the Bristol Dispensary.

IRVING, J., M.B., C.M., House Surgeon to the Huddersfield Infirmary.

KELLY, M. J., M.R.C.S.E., L.K.Q.C.P.I., Medical Officer, &c., for the Castledermot Dispensary District of the Athy Union, co. Kildare.

KENNEDY, E., M.R.C.S., Surgeon to the Ardwick Dispensary, Manchester.

KEMMIS, H. M., L.K.Q.C.P.I., M.R.C.S.E., Medical Officer and Public Vaccinator for No. 2 District of the Bridgwater Union.

LAWRENCE, J., M.D., C.M., M.R.C.S.E., L.M., Medical Officer to the new Infirmary, Darlington.

M'CARTHY, E., M.D., M.R.C.S.E., Medical Officer and Public Vaccinator for No. 3. District of the Buckingham Union.

O'DEA, P. St. L., L.R.C.P.Ed., L.R.C.S.Ed., Medical Officer, &c., for the Spiddal Dispensary District of the Galway Union, and Medical Officer to the Royal Irish Constabulary, Spiddal and Inverin Stations.

POLLOCK, J. F., M.B., Sanitary Officer for the Blackrock, co. Dublin, Urban Sanitary District.

POWELL, J., M.R.C.S.E., Senior House Surgeon to the Royal Free Hospital.

THOMPSON, H., M.R.C.S.E., Medical Officer and Public Vaccinator for No. 2 District of the Sevenoaks Union.

WALSH, R. P., L.K.Q.C.P.I., Superintendent Medical Officer of Health for the Enniskillen Urban Sanitary District.

WARD, M. A., M.B., Superintendent Medical Officer of Health for the Rathmines and Rathgar Urban Sanitary District.

## Marriages.

BLAIRIE—DUNBAR.—On the 23rd inst., at Trinity Presbyterian Church, Notting Hill, James Blairie, M.A., to Georgina Jane, younger daughter of Surgeon-General J. A. Dunbar, M.D., late Bengal Army.

NEWBERRY—SPICER.—On the 22nd inst., at St. Nicholas, Leeds, Kent, W. J. Newberry, M.R.C.S.E., of Beresford House, Sutton-Valence, to Annie P. Spicer, of Burgess Hall, Leeds.

## Deaths.

COLE.—On the 14th Dec., R. J. Cole, M.D., Surgeon (half-pay), late of the 20th and 1st West India Regiments, of Great Brunswick Street, Dublin.

MILLAR.—On the 10th Dec., at York Terrace, Leamington, James Millar, L.F.P. & S. Glas., late of the Peninsular and Oriental Co.'s Service.

NICHOLSON.—On the 12th Dec., John Nicholson, M.D., New Brighton, Cheshire, aged 72.

THURSFIELD.—On the 14th Dec., at High Street, Bridgnorth, the dearly beloved wife of William Thurstfield, M.D., aged 86.

**IMPEDIMENTS of SPEECH.**—The Rev. ALEX. J. D. DORSEY, B.D. Cambridge, Lecturer on Public Reading and Speaking, K.C.L., receives resident and visiting Pupils suffering from Weak Voice, Indistinct Articulation, Stammering, and other defects. References.—Sir William Fergusson, Bart., Prof. Humphry, Henry Bullock, Esq., Dr. Morell-Mackenzie, Dr. Sutherland, John Croft, Esq. 13 Prince's Square, Baywater, W.

**HOSPITAL SUNDAY, 1875.**—NOTICE IS HEREBY GIVEN, that a PUBLIC MEETING will be held on MONDAY, the 4th day of January, 1875, at Half-past Two o'clock, in the Egyptian Hall of the Mansion House, for the purpose of settling the preliminary arrangements for Hospital Sunday, 1875, and of electing the Council, &c., for that year.

All ministers of religion in the metropolis and its neighbourhood, the authorities of the various hospitals and dispensaries, and others interested in the movement, are invited to be present.—By order.

HENRY N. CUSTANCE, Secretary.

**ARMY MEDICAL DEPARTMENT.**

24TH DECEMBER, 1874.

**AN EXAMINATION of CANDIDATES for COMMISSIONS** in the Medical Department of Her Majesty's Army will be held in London on the 15th FEBRUARY, 1875, and following day.

Candidates having the necessary qualifications to practise Medicine and Surgery under the Medical Act, and who are unmarried, and not under 21, nor above 28 years of age, are eligible to attend. Applications for admission to the examination should be made in writing, without delay, to the Director-General of the Army Medical Department, War Office, London.

W. M. MUIR, Director-General.

**ADMIRALTY, MEDICAL DEPARTMENT OF THE NAVY.**  
9 New Street, Spring Gardens, S.W.,  
20th December, 1874.

**NOTICE OF EXAMINATION of CANDIDATES FOR THE NAVAL MEDICAL SERVICE.**—Notice is hereby given, that a Competitive Examination of Candidates for admission into the Medical Service of the Royal Navy, will take place at the University of London, Burlington Gardens, on Monday, 15th February, 1875, and following days, at 10 o'clock.

Candidates must present themselves at this Department, for Physical Examination, at 11 o'clock, on Thursday, 11th February, 1875, when, should they be found in all respects eligible, they will be permitted to appear for examination.

The necessary forms to be filled up by Candidates will be supplied on application to this Department.

A. ARMSTRONG,  
Director-General.

**IRISH MEDICAL ASSOCIATION.**

**A MEETING of the COUNCIL of the IRISH MEDICAL ASSOCIATION** having been summoned to take into consideration the present affairs of the Association, and to deliberate upon the propriety of electing an Hon. Sec. in room of Dr. Quinan, resigned, it was arranged that the appointment of an Hon. Sec. be postponed until the collective opinion of the Association on the present juncture be ascertained; as the Council finds that, unless a special collection be made to relieve the Association from its present difficulties, it will be impossible to conduct its affairs.

It was resolved—"That the President be requested to communicate with the Hon. Secretaries of the Branch Associations, calling upon them to use their best efforts in obtaining from the members of the Association, and the profession generally, aid in carrying out the object of the above resolution."

It was also resolved—"That the President be requested to summon a special meeting of the Association on an early day, to consider the expediency of reorganising the Association, and to raise a special fund for the liquidation of its outstanding debt."

In accordance with the foregoing resolutions I convene a special general meeting of the Irish Medical Association for Wednesday, the 6th January, 1875, at 12 o'clock, at the Royal College of Surgeons.

(Signed) HENRY J. SMITH,  
President Irish Medical Association.

**THE STEWART INSTITUTION FOR IMBECILES, AND LUNATIC ASYLUM, LUCAN.**

PATRON:—H.R.H. THE PRINCE OF WALES.

This Institution was founded in 1860, and has already attained a large measure of success. It is situated in a healthy locality, and is under the superintendence of a Resident Physician, with trained teachers, who endeavour by the most improved methods to develop the powers, mental and physical, of Imbeciles.

To the pupils who can receive such instruction useful trades are taught. In that of mat making, particularly, excellent progress has been made, and an inspection of the work is invited either at the Institution or at the office.

The Institution is the only one of its kind in Ireland, and is mainly supported by voluntary contributions.

Pupils are admitted free by election, or by payment of 25s per annum. A higher rate is payable for separate accommodation.

Contributions to the fund for the erection of the proposed extensive buildings at Palmerston are earnestly solicited.

Each donation of Five Guineas gives the donor a life-vote. Annual Subscribers are entitled to one vote for each half guinea paid.

An Asylum for Lunatic Patients of the middle classes, under a well-organised administration, also forms part of the establishment.

Full particulars as to the working of both Institutions, terms, &c. can be had at the office,

40 MOLESWORTH STREET, DUBLIN,  
W. O'NEILL, Secretary.

Established 1848.

**PROFESSIONAL AGENCY AND MEDICAL TRANSFER OFFICE.**

50 LINCOLN'S INN FIELDS, W.C.

J. BAXTER LANGLEY, LL.D., M.R.C.S., F.L.S.,  
&c. (King's Coll.), and Author of VIA MEDICA.

Has always upon his books a large number of desirable Investments and available Appointments for negotiation.

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Z 81 Within 15 miles of London, a JUNIOR PARTNERSHIP in a good GENERAL PRACTICE, in a suburban locality. A fourth share for disposal, with succession to further share hereafter upon equitable terms. The receipts are £1,350 a year, and there is great scope for increase. There is little dispensing. The Junior could at first reside at the branch surgery. Premium, £875, part of which may be left on security, and paid by instalments.

Z 78. First-class LONDON PRESCRIBING PRACTICE, held by the Incumbent for many years. A Partnership introduction would be given, but the connection could not be transferred to any gentleman not highly qualified nor unless he were accustomed to the best society. The income averages about £4,500 a year. Midwifery fees from 7 to 10 guineas. The residence is well situated near the most fashionable west-end squares.

Z 79. In a fashionable watering place, an OLD-ESTABLISHED FAMILY PRACTICE, the average receipts from which are between £1,000 and £1,200 a year. Midwifery having been lately declined, there is little obstetric practice, but there is scope for almost unlimited increase, if this department were resumed. The house is large, very convenient, and very near the shore; it contains twenty-three rooms, with detached groom's house, stabling, &c.; it can be purchased or rented. Ill-health and advanced age the cause of retirement. The premium would depend upon the introduction required, but no gentleman need negotiate unless he has at command at least £1,000.

Z 80. In a prosperous and picturesque district, an OLD-ESTABLISHED PRACTICE, yielding in actual receipts £1,100 a year. Age the cause of retirement. Appointments bring in £62 a year. The house is well situated, contains 10 rooms, with detached surgery, offices, stabling, and large garden. Rent 40 guineas. The working expenses amount in all to about £300 a year. An effective introduction by quasi partnership or otherwise as long as may be desired. Part of the premium may be paid by instalments. The whole connection is safely transferable to a suitable gentleman, and there is great scope for increase, as there is a population of about 15,000 inhabitants.

Z 77. PARTNERSHIP in a large and prosperous town within 100 miles of London. A gentleman conducting an increasing practice desires to secure the co-operation of a doubly-qualified partner. Receipts last year were upwards of £1,100, and the present year will show a considerable advance. As there is great scope for increase the Incumbent believes that the receipts could be doubled by efficient co-operation. The expenses of the Practice are moderate, as the patients reside within a short radius. Public appointments produce about £200 a year. The Half Share for transfer. Part of the premium might be left on security if the applicant were suitable.













